

# (Creating A Way For Govt. Jobs) **Banking Academy**

(Preparation for All Types of Competitive Exams)

# Important Highlights of the Month

- Indian chess Grandmaster R Praggnanandhaa defeats world No. 1 Magnus Carlsen
- What's the deadly Lassa fever that's being reported after 13 years in the UK?
- Cultural Legends Bappi Lahiri, Lata Mangeshkar & Sandhya Mukherjee died
- Dadasaheb Phalke International Film Festival Awards 2022 conferred
- Germany, Italy, Portugal, Honduras & Burkina Faso get new Head
- Anantha Nageswaran appointed new Chief Economic Advisor
- Dinesh Prasad Saklani named new NCERT director
- Vineet Joshi appointed as new CBSE chairman
- Russia Ukraine Crisis Explained
- Union Budget 2022-23 Highlights
- Economic Survey 2021 Glimpse



**LATA MANGESHKAR** 





**BAPPI LAHIRI** 



PANKAJ TRIPATHI



**AKSHAY KUMAR** 



**DISHA PATANI** 

# 250 High Level MCQ's

- **Statement Based**
- **Current Affairs**
- Economics
- History
- Polity
- Geography
- Physics
- Chemistry
- Biology

# Mock Tests 2022

**IBPS PO Prelims** SSC CHSL Prelims **RRB NTPC Mains** 







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# Banking A Way For Govt. Jobs) Banking Academy

(Preparation for All Types of Competitive Exams)

The Current Affairs March-2022 Magazine covers the current events that happened in the month of February 2022. Current Affairs is a crucial component of any competitive exams including IAS\PCS, SSC, Banking and MBA.

Current Affairs plays the bigger role in many competitive and government exams. It holds the power of making or breaking your chance of success. Therefore, the candidates should cover the Current Affairs thoroughly and smartly.



However, there are huge numbers of students who are confused about how to prepare for the current affairs section of the different competitive exams. To clear such doubts and confusion, Banking Academy has come up with this idea.

We at Banking Academy work tirelessly to create this magazine and bring it to you with a great sense of gratitude every month. We always strive for excellence and therefore, our research team continuously endeavors to give you the best material.

The Current Affairs March-2022 magazine is divided into different sections keeping in mind the need of various exams. The sections covered namely are Books and Authors, Revision of the previous Month, Recent Appointments, National News, International Events, Banking & Economy, MoU's Signed, Awards & Recognitions, Sports, Science & Technology, Obituaries, Miscellaneous Events, Trending Topics, Important Days along with 3 Model papers (IBPS PO Prelims, SSC CHSL Prelims & RRB NTPC Mains).

Every news item in each section is chosen on the basis of its importance in competitive exams. We also kept a close eye on some of the recent analytical stories which may have a direct impact on your understanding of the issue.

Highlights of the issue are: Union Budget 2022-23 Highlights, Economic Survey at a glance & Why Did Russia Invade Ukraine? The Conflict Explained.

Presentation of the given Current Affairs has been planned meticulously. It has been planned in such a way that it remains in the minds of readers for a longer duration.

Chetan Bhimani Director

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#### **ABOUT US:**

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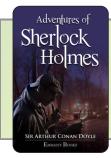
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# **Books and Authors**



Book: Adventures of Sherlock

Holmes

Author: Sir Arthur Conan Doyle **About:** It is a collection of twelve short stories featuring the consulting

detective Sherlock Holmes.

Book: Das Capital Author: Karl Marx

About: This book expounded author's theory of the capitalist system, its dynamism, and its tendencies toward self-destruction.





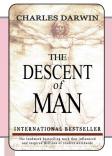
**Book:** The Adventures of Tom Sawyer

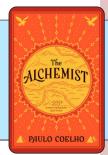
Author: Mark Twain

About: The Adventures of Tom Sawyer is an 1876 novel by Mark Twain about a boy growing up along the Mississippi River.

**Book:** Descent of Man **Author:** Charles Darwin

About: Darwin's book applied the theory of evolution through selection to the human species, through the process of sexual selection.





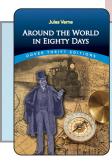
Book: The Alchemist **Author:** Paulo Coelho

**About:** The Alchemist follows a young Andalusian shepherd in his journey to the pyramids of Egypt, after having a recurring dream of finding a treasure there.

About: Themed around the socioeconomic deprivation as well as the exploitation of the village poor, the novel was the last complete novel of Premchand.

Author: Munshi Prem Chand





**Book:** Around the World in Eighty Days

Author: Jules Verne

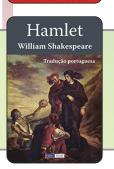
About: In this book Phileas Fogg of London and his newly employed French valet Passepartout attempt to circumnavigate the world in 80 days on a wager of £20,000.

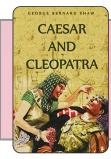
Book: Hamlet

Book: Godan

Author: William Shakespeare

About: This book depicts Prince Hamlet and his revenge against his uncle, Claudius, who has murdered Hamlet's father in order to seize his throne and marry Hamlet's mother.





**Book:** Caesar and Cleopatra

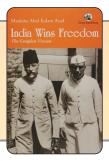
Author: George Bernard Shaw

**About:** Caesar and Cleopatra is a play written in 1898 by George Bernard Shaw that depicts a fictionalized account of the relationship between Julius Caesar and Cleopatra.

Book: India Wins Freedom

Author: Maulana Abul Kalama Azad

About: This book is an account of the Partition from the Maulana Azad's perspective. It includes his personal experiences when India became independent, and his ideas on freedom and liberty.













# Let's Recap

- 1. GoodDot ropes in whom as its brand ambassador? 19. Neeraj Chopra
- Reserve Bank of India has approved the 2. appointment of whom as independent chairman of Unity Small Finance Bank? Vinod Rai
- 3. Who has been appointed as the Managing Director, National Highways & Infrastructure Development Corporation Ltd? Kumar
- 4. The board of directors of the Indian Farmers Fertiliser Cooperative has been elected whom as the 17th Chairman? Dileep Sanghani
- 5. Senior bureaucrat Vikram Dev Dutt has recently been appointed as the chairman and managing director of which company? Air India
- 6. The Government of India has appointed whom as the next Vice Chief of Army Staff? Manoj Pande
- Who has become new President of European 24. 7. Parliament? Roberta Metsola
- Who has been taken charge as the new Chairman 8. of the Apparel Export Promotion Council? 25. Narendra Goenka
- 9. Who has been appointed as the CEO of Adani Power? Shersingh B Khyalia
- 10. Daniel Ortega has been sworn in as President of which country for fifth term? Nicaragua
- 11. Who has been appointed as chairman of the Indian Council of Historical Research? Raghuvendra 27. **Tanwar**
- 12. Alikhan Smailov has been appointed as new Prime Minister of which country? Kazakhstan
- 13. Who will be the head of the committee constituted by Supreme Court of India to probe the security breach of Prime Minister Narendra Modi in Punjab? Indu Malhotra
- Which Bollywood actor has been named as brand 14. ambassador of RenewBuy? RajKummar Rao
- 15. Who has been appointed as new Chairman of ISRO by succeeding K Sivan? S Somanath
- 16. Who has been named as the new Chief Economist 31. of International Monetary Fund by succeeding Gita Gopinath? Pierre-Olivier Gourinchas
- 17. Which former Reserve Bank of India Governor has been appointed as Vice President of Asian 32. Infrastructure Investment Bank? Urjit Patel
- 18. The Government of India has extended the tenure of Navrang Saini as interim Chairperson of 33. Insolvency and Bankruptcy Board of India (IBBI) for how much time? Three Months

- Who will be head of the committee constituted by Ministry of Home Affairs to enquire into the serious lapses in the security of PM? Sudhir Kumar Saxena
- 20. Legends League Cricket has appointed whom as an ambassador to its All Women Match Official Team to promote Women's Empowerment initiatives of the LLC? Jhulan Goswami
- 21. Who has been taken charge as the new Secretary-General of the Shanghai Cooperation Organisation? Zhang Ming
- Organization of the Petroleum Exporting 22. Countries has appointed whom as its new secretary-general? Haitham Al Ghais
- 23. Government of India has re-appointed whom as Chairman of Commission for Agricultural Costs and Prices? Ashok Gulati
- Shafali Verma has been appointed as the Brand Endorser of which financial company? Bank of
- Who has been appointed as the President of the US-India Business Council by the US Chamber of Commerce? Atul Keshap
- Who is the woman representative in the 26. parliamentary standing committee constituted to examine "The Prohibition of Child Marriage (Amendment) Bill, 2021"? Sushmita Dev

Who has been appointed as the new Director-

- General of the National Mission for Clean Ganga under the Ministry of Jal Shakti? G Asok Kumar 28. Who has been appointed as Oil and Natural Gas Corporation's first woman Chairperson and Managing Director? Alka Mittal
- 29. Who has been named as the new Chair of the UN Counter-Terrorism Committee for 2022? TS Tirumurti
- **30.** Vinod Kannan has been named as next Chief Executive Officer of which airline company? Vistara airline
- Which former British Prime Minister and Baroness Amos are to be appointed as members of the Order of the Garter which is England's oldest and most senior order of chivalry? Tony Blair
- Who has been named as Managing Director & Chief Executive Officer of Jammu & Kashmir Bank? Baldev Prakash
- Who has been taken over as Director-General of Indian Coast Guard? V S Pathania









- 34. Who has been appointed new chairman of Railway Board? Suneet Sharma
- 35. Who has become India's new ambassador to United Nations Conference on Disarmament? 52. Anupam Rav
- **36.** Name the Managing Director and Chief Executive 53. Officer of Equitas Small Finance Bank, who has been appointed recently? Vasudevan PN
- Who will hold the additional charge of "Sashastra 37. Seema Bal" in place of Kumar Rajesh Chandra? 54. Saniav Arora
- 38. The Government of India has appointed Soma Sankara Prasad as the Managing Director and 55. Chief Executive Officer of which bank? UCO Bank
- 39. Recently, Government of India has appointed whom as new Managing Director and Chief 56. Executive Officer of Punjab National Bank? Atul Kumar Goel
- **40.** Who has been named as Director General & Chief Executive Officer of Indian Institute of Corporate Affairs? Praveen Kumar
- 41. Who has been named as the new chairman of Yamaha Motor India Group? Eishin Chihana
- 42. Which Indian-origin judge has been appointed to South Africa's highest judicial bench? Narandran 'Jody' Kollapen
- 43. Who has been inducted as a member of the Securities & Exchange Board of India's Advisory Committee on Mutual Funds? Aarati Krishnan
- 44. Which country will chair the Counterterrorism Committee of the United Nations Security Council (UNSC) in January 2022? India
- Which district has been topped in the District 45. Good Governance Index prepared by Department Administrative Reforms and Public Grievances? Jammu
- Which state government has launched "Apna 46. Kangra" app? Himachal Pradesh
- 47. Which state has recently launched India's first AVGC Center of Excellence? Karnataka
- 48. Which state government has recently launched a 64. one-stop website to promote electric vehicles? Delhi
- 49. Prime Minister Narendra Modi will inaugurate a 216-feet statue of Ramanujacharya in which city? 65. Hvderabad
- Which village of Jammu and Kashmir has been 66. **50.** declared as first "Milk Village"? Jerri hamlet
- 51. Who has been roped in as the Ambassador of Universal Acceptance Steering Group which is a

- community-based team of industry leaders supported by global internet body ICANN? Vijav Shekhar
- Which city has been chosen for India's first helihub with all aviation facilities? Gurugram
- Amar Jawan Jyoti flame has been merged with the flame at the National War Memorial in a solemn ceremony. Amar Jawan Jyoti is located in which city? New Delhi
- Recently the Union cabinet has approved the extension of tenure of National Commission for Safai Karamcharis for how many years? 3 Years The Border Security Force, BSF has launched Operation Sard Hawa in which state to increases
  - the surveillance in the Pakistan border? Rajasthan
- Which ministry has announced the initiation of the Open Data Week to encourage adoption of open data and promote innovation across India's urban ecosystem? Ministry of Housing and Urban Affairs
- 57. PM Narendra Modi has been declared which day of January as "National Startup Day"? 16 January
- Who has launched Artificial Intelligence driven **58.** Startup by Indian Institute Technology alumni for water purification? Dr Jitendra Singh
- 59. Which village of Kerala has become the country's first sanitary napkin-free panchayat under "Avalkayi" initiative? Kumbalanghi
- Which ministry has launched Raksha Pension 60. Shikayat Nivaran Portal to speedily redress pension issues? Ministry of Defence
- 61. On the occasion of the National Youth Day 2022, Prime Minister has inaugurated an "MSME Technology Centre" in which state/UT? Maharashtra
- **62.** Which state government has announced to bring law to regulate online gaming? Madhya Pradesh
- 63. Recently, which state government has announced increase in the retirement age of the State Government Employees? Andhra Pradesh
- The Railway Protection Force of the Western Railways zone has launched which initiative to help passengers track their lost belongings? **Mission Amanat**
- Which city has become India's first city to have a Water Metro Project? Kochi
- The Ministry of Railways has approved the renaming of which railway station, as Ekta Nagar railway station? Kevadiya railway station



- **67.** The 19th Meeting of National Tiger Conservation 83. Authority has been chaired by whom? **Bhupender Yadav**
- **68.** Which state government has been launched 84. "Student Start-ups and Innovation Policy 2.0 (SSIP-2.0)" for the next five years? **Gujarat**
- **69.** With which Ministry, the Department for Promotion of Industry and Internal Trade have decided to organise "Startup India Innovation 86. Week"? Ministry of Commerce and Industry
- Khadi and Village Industries Commission **70.** Chairman, Vinai Kumar Saxena has launched the country's first Mobile Honey Processing Van in 87. which district of Uttar Pradesh? Ghaziabad
- 71. Which city has been handpicked by Prime Minister of India to host the 25th National Youth Festival? Puducherry
- The Union Minister of State Dr Jitendra Singh has 72. inaugurated India's first unique "Rock" museum 89. in which city? **Hyderabad**
- Which district of Odisha has declared itself a child 73. marriage free district, the first in the State after the Nirbhaya Kadhi programme? Ganjam
- Union Ayush Minister, Sarbananda Sonowal has 74. laid the foundation stone of International Yoga Academy in which city? **Hyderabad**
- Which government agency has launched 91. *75.* "Saa₹Thi" mobile app on investor education? **SEBI**
- Which digital mobile wallet company and Fintech **76.** companies have launched "ClickPay" for its customers in collaboration with NPCI Bharat BillPay Ltd? MobiKwik
- 77. Which telecom company has become first telecom 93. company to roll-out UPI AUTOPAY? JIO
- **78.** Recently, Defence Ministry has allocated how much Armed Forces Flag Day Fund for the 94. welfare of veterans and their families? Rs 320
- **79**. Which Payment Bank has recently become most preferred UPI beneficiary bank in India? Paytm **Payment Bank**
- 80. World Bank has projected India's GDP growth at 96. what percent for fiscal year 2022? 8.3%
- 81. The Reserve Bank of India has increased other extension of funds received from non-financial small business customers from Rs 5 crore to how 97. much? Rs 7.5 crore
- 82. The rating agency India Ratings and Research has lowered India's GDP growth forecast by what percent in FY22? **09.3%**

- Which company has introduced a functionality called "Unified Presentment Management System" (UPMS)? Bharat BillPay Ltd
- Which company has introduced India's first global index of cryptocurrencies IC15? CryptoWire
- 85. Which payments bank has been categorised as a scheduled bank by the Reserve Bank of India after Paytm Payment bank? Airtel Payment Bank
- According to the insurance regulator, IRDAI has identified which company as **Domestic** Systemically Important Insurers for 2021-22? Reliance, LIC, New India, GIC
- Who has won National Billiards Title 2021? Pankaj Advani
- Who has won the Sushila Devi Award 2021 for the 88. Best Book of Fiction for her novel "Kintsugi" which was published by the Fourth Estate imprint? Anukrti Upadhyay
- Which university has won the "Digital Innovation" of the Year Award" in the prestigious Times Higher Education (THE) Asia Awards 2021? O. P. Jindal Global University
- 90. In the 46th GST Council Meeting chaired by Finance Minister Nirmala Sitharaman, the GST rate on biodiesel has been reduced from 12 percent to what percent? 5%
  - The Ministry of Finance has given the authorization to which bank to issue Electoral Bonds through their selected branches? State Bank of India
- Which Company launched co-branded credit 92. cards for navy personnel along with the Indian Navy? **BOB** Financial Solutions
- Which bank has recently been impanelled as Agency Bank by Reserve Bank of India? CSB Bank
- Which bank has launched "Video Life Certificate" facility for pensioners? State Bank of India
- 95. Recently, India has signed an agreement with KfW Development bank for 140 million Euro loan & 2 million Euro grant for an energy reform programme in which state? Madhya Pradesh
- The governments of Himachal Pradesh and Haryana have signed an MoU for the construction of a Adi Badri dam for the revival of the which river? Saraswati river
- Which state has joined hands with United Nations World Food Programme to improve the food security of small and marginal farmers in India by strengthening their resilience to climate change? Odisha









- 98. Entrepreneurship has signed a Memorandum of Understanding with the which bank to financially support early-stage start-ups? Indian Bank
- 99. What is the name of the technology platform 113. backed by Zomato, that has acquired Rocketbox for an undisclosed sum? Shiprocket
- **100.** RBL Bank, formerly known as Ratnakar Bank has tied-up with which tech company to advance nextgen customer experience? Google
- 101. Which two countries have signed a defence agreement that stand as a rebuke to China's growing assertiveness in the Indo-Pacific region? Australia and Japan
- 102. External Affairs Ministry has signed an agreement for second phase of Passport Seva Programme with which company? TCS
- 103. United Nations' World Food Programme in India has partnered with which foundation to enhance the effectiveness of the Pradhan Mantri – Poshan Shakti Nirman (PM POSHAN) scheme? Akshaya Patra Foundation
- 104. Which two Caribbean nations has joined the International Solar Alliance as the 102nd member by signing the ISA Framework Agreement? Antigua and Barbuda
- 105. SBI Cards and Payment Services has tied up with which company for card tokenisation to protect the data of the cardholders? Paytm
- **106.** The Asian Development Bank and the Government of India has signed a 231-milliondollar loan to augment electricity generation 120. capacity in which state? Assam
- 107. Which state government has partnered with the National Payments Corporation of India & State Bank of India to enable and implement the "e- 121. External Affairs Ministry has signed an agreement RUPI" payment solution to students? Karnataka
- 108. Which company has tied-up with NSDL Payments Bank to launch a new Fintech platform? **Indipaisa**
- 109. Which life insurance company has signed a bancassurance agreement with South Indian Bank to enable customers of Bank to avail insurance products and services? HDFC Life Insurance
- 110. Paytm Payments Bank has partnered with which company company financial enable international fund transfer directly to Paytm Wallet? MoneyGram
- 111. Which government agency has signed a Statement of Intent with the United Nations World Food Programme (WFP)? NITI Aayog

- Laboratory for Innovation Venturing and 112. The Government of India has granted "In-Principle" approval to set up six Nuclear Power Reactors of 1,650 MW each in technical cooperation with which country? France
  - National Payments Corporation of India (NPCI) has signed a partnership agreement with which company to encourage innovative learning and skill development for employees of NPCI? **Udemy Business**
  - 114. Which small finance bank has empanelled as the banking partner of the state government of Maharashtra? Equitas Small Finance Bank
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- 132. Which small finance bank has empanelled as the banking partner of the state government of Maharashtra? Equitas Small Finance Bank
- 133. Which country has withdrawn from the ongoing Asian Football Confederation Women's Asian 152. Cup 2022? India
- 134. Which state/UT's women's ice hockey team has won the 9th National women's ice hockey championship of 2022? Ladakh
- Development Programme first youth climate champion? Prajakta Koli
- 136. Which cricketer has been named as the captain of 154. ICC Men's T20I Team of the Year? Babar Azam
- 137. Which country will host AFC Women's football Asian Cup 2022? India
- 138. Which company has become title sponsor of Toronto Waterfront Marathon? TCS
- **139.** Aslan Karatsev, who has won the Sydney Tennis **156.** Classic 2022, hails from which country? Russia
- 140. The ninth women National Ice Hockey Championship-2022 has been started in which 157. state? Himachal Pradesh

- the world at the FIFA awards 2021? Robert Lewandowski
- Who has become the World No 1 in Badminton U-142. 19 Girls Singles? Tasnim Mir
- National Payments Corporation of India & State 143. Who has won the men's singles final at the ongoing India Open 2022 at the KD Jadhav Stadium? Lakshya Sen
  - The All India Sports Council of the Deaf will host the first World Deaf T20 Cricket Championship in which state? Kerala
- 128. Which life insurance company has signed a 145. Clive Lloyd, who has been given the honour of knighthood for his services to the game of Cricket, was the Captain of the which Cricket team? West Indies
  - Who has been named as the Captain of India Women Hockey Team for Asia Cup? Savita
  - 147. Which multinational conglomerate company has replaced Chinese mobile manufacturer Vivo as IPL title sponsor for the 2022 and 2023 seasons? Tata group
  - Ajaz Patel, who has won the ICC Player of the Month Award, hails from which country? New Zealand
  - 149. Who has won the men's singles tennis title at 2022 Melbourne Summer Set 1? Rafael Nadal
  - 150. Recently, who has been named as India's 73rd chess Grandmaster? Bharath Subramaniyam
  - 151. Who has won the World Rapid Chess Championship 2021? Nodirbek Abdusattorov
  - Recently, Sports Ministry's Mission Olympic Cell of India has approved the inclusion of which Alpine Skiing athlete in the Target Olympic Podium Scheme (TOPS) Core group? Md Arif Khan
- 135. Who has become India's United Nations 153. Bhanuka Rajapaksa, who has been announced his retirement from all formats of cricket, hails from which country? Sri Lanka
  - Which New Zealand's cricketer has recently announced his retirement from all formats of international cricket? Ross Taylor
  - **155.** Wicketkeeper-batsman Quinton de Kock, who has announced his retirement from Test cricket is from which country? South Africa
  - Which footballer's statue has recently been installed in Panaji, Goa to inspire the youth over football sport? Cristiano Ronaldo
  - Which state has won the 11th Hockey India junior national championship? Uttar Pradesh









- International Ski Federation (FIS) Alpine Skiing Competition in Montenegro? Aanchal Thakur
- 159. Who has become first Indian girl to win Junior Squash Open tournament in Philadelphia? **Anahat** 177.
- test of the arrow-3? Israel
- 161. Which country has recently launched the first indigenously developed satellite constellation 179. MDASat? South Africa
- research facility where the gravity can be controlled with the use of powerful magnets? China
- 163. Which technology company has become world's first company to hit \$3 trillion Market Cap? Apple
- 164. Which country has tested-fired new hypersonic 182. Professional Mountaineer Major Hari Pal Singh Tsirkon missiles 2022? Russia
- 165. Recently, Prime Minister Narendra Modi has laid which state? Punjab
- 166. Which country has announced a five-year roadmap to achieve its goal of becoming a global robotics innovation hub by the year 2025? China
- 167. "PRAGYATA Guidelines", is associated with which field? Digital Education
- 168. Which organization tested Extended Range Pinaka (Pinaka-ER) at Pokhran Range, Rajasthan? **DRDO**
- 169. The Indian Army has established the Quantum Lab at the Military College of Telecommunication Engineering in which state? Madhya Pradesh
- 170. Which country has launched its first in the series 22220 Project versatile nuclear-powered icebreaker known as "Sibir"? Russia
- 171. Which country has introduced a minibus lookalike 188. The renowned social worker and recipient of the world's first dual-mode vehicle? Japan
- 172. The Defence Research and Development Organization has selected which company for handing over the technology of border surveillance systems? Paras Defence and Space **Technologies**
- The Indian Army has set up a quantum computing laboratory and a centre for artificial intelligence at a military engineering institute in which state? Madhya Pradesh
- 174. Which country has recently launched the 'Tsirkon 192. KS Sethumadhavan, who has passed away hypersonic missile system'? Russia
- 175. Which country has launched Inmarsat-6 F1, the Communications Satellite? Japan

- 158. Who has bagged a bronze medal at the 176. Minister of Defence, Rajnath Singh has launched indigenous Multi-Terrain Artillery Gun that was developed by which company? Bharat Forge
  - James Webb Space Telescope has been launched by NASA on which rocket? Ariane 5
- 160. Which country has completed a successful flight 178. Which state government has launched the Chalo mobile application (app) and Chalo smart cards to facilitate Transportation in state? Maharashtra
  - Which messaging app has been launched by the Indian Army? ASIGMA
- 162. Which country has built an artificial low-gravity 180. The Indian Air Force has deployed the first S-400 Triumf air defence missile system in which state?
  - Social media messaging company WhatsApp has 181. announced the Digital Payments Utsav for how many villages in India? 500
  - Ahluwalia, who has passed away recently, was the winner of Arjuna Award in which year? 1965
  - the foundation stone of PGI Satellite Centre in 183. Toshiki Kaifu, who has been passed away recently, was the former president of which country? Japan
    - 184. Legendary Kathak dancer Pandit Birju Maharaj, who has been passed away recently, was honoured with the country's second-highest Civilian Award, Padma Vibhushan in which year? 1986
    - Saroj Pattnayak, who has been passed away recently, was a famous - Music Composer
    - 186. Chandrashekhar Patil, popularly known as "Champa", has been passed away recently. He was the famous writer of which language?
    - What was the name of India's oldest female sloth 187. bear, which has passed away recently in Madhya Pradesh? Gulabo
    - Padma Shri Award, Sindhutai Sapkal has passed away recently. In which year he was awarded by Padma Shri Award? 2021
    - 189. Vijay Galani, who has been passed away recently, was a famous - Producer
    - 190. Colonel Narendra "Bull" Kumar has been passed away recently. In which operation does he play a major role? Operation Meghdoot
    - **191.** Mark Taylor, who has passed away recently was the artist and designer of which toy? **He-Man**
    - recently, was a famous director of which language's film industry? Malayalam



- Africa's struggle against the white minority rule and Nobel Peace Prize laureate has been passed away recently. In which year he was honoured 211. with Nobel Peace Prize? 1985
- **194.** Dr Suresh Jadhav, who has passed away recently, **212.** was the Executive Director of which Biotechnology company? Serum Institute
- 195. Recently, CDS General Bipin Rawat has passed away in a crash of the Indian Airforce Helicopter. When had he taken charge as India's first-ever Chief of Defence Staff? January 1, 2020
- 196. Nanda Kishore Prusty popularly known as Nanda Sir has been passed away recently. When was he awarded by Padma Shri? 2021
- 197. Koneru Ramakrishna, who has passed away recently, was a famous - Philosopher
- 198. Veteran journalist Vinod Dua has passed away recently, in which year he was awarded by Padma 216. Shri? 2008
- **199.** Eminent Assamese poet, Sananta Tanty, who has passed away recently was honoured by Sahitya Akademi Award in which year? 2018
- Which bank has been named the world's most important bank to the health of the wider financial system? JPMorgan Chase
- 201. Chun Doo-hwan, who has passed away recently, 218. was the former president of which country? **South** Korea
- 202. Babasaheb Purandare, who passed away recently, was associated with which profession? **Historian**
- 203. Novy Kapadia, who passed away recently, was related to which field? **Sports**
- 204. Anand Shankar Pandya, who has passed away recently, was the Vice President of which organization? Vishwa Hindu Parishad
- 205. Senior political leader Subrata Mukherjee has passed away recently. He was associated with which political party? **TMC**
- 206. The Indian government has decided to celebrate January 23rd as which day to commemorate the Parakram Diwas
- 207. National Girl Child Day is observed every year on which day of January? 24th of January
- 208. Kokborok Day is celebrated annually across Tripura on which day of January with an aim to develop the Kokborok Language? January
- **209.** Who is the author of the recently released book "The Legend of Birsa Munda"? Tuhin A Sinha

- 193. Archbishop Desmond Tutu, a veteran of South 210. Tripura, Manipur and Meghalaya have celebrated their foundation day on which day of January? 21st of January
  - Who has been grabbed a top spot in a global rating amongst the world leaders? Narendra Modi
  - The Union Cabinet approved infusion of how much rupees in Indian Renewable Energy Development Agency Limited? 1500 crore
  - 213. A book titled as "Bose: The Untold Story of An Inconvenient Nationalist" is penned by whom? **Chandrachur Ghose**
  - **214.** The National Disaster Response Force (NDRF) has celebrated its Raising Day every year on which day of January? 19th of January
  - 215. Recently, Tata Power Renewable Energy has commissioned two solar power projects in which two cities of Uttar Pradesh? Prayagraj and
  - Indigenously designed and built guided missile destroyer, INS Kochi conducted a Passage Exercise (PASSEX) with RFS Admiral Tributes of which country's navy in the Arabian Sea?
  - What is the name of the autobiography on Padma 217. Shri recipient HPS Ahluwalia? Higher Than **Everest**
  - Recently India and Japan hold Maritime Partnership Exercise in Bay of Bengal. In context to same what does "S" stands for in the abbreviation of JMSDF? Self
  - 219. According to the recently released State of Forest Report 2021, how much percent of India is under forest cover? 21.71%
  - The eighteenth Kachai Lemon Festival 2022 has 220. begun in which state? Manipur
  - **221.** Which day is observed on 15th of January every year? Indian Army Day
  - 222. The recently published book "Indomitable: A Working Woman's Notes on Life, Work and Leadership" is the autobiography of whom? Arundhati Bhattacharva
  - birth anniversary of Netaji Subhas Chandra Bose? 223. Which state has got first position out of 26 states in the India Skills 2021 national competition? Odisha
    - 224. The ninth edition of the North East Festival has concluded in which state? Assam
    - 225. National Youth Day is celebrated every year on January 12 to mark the birth anniversary of whom? Swami Vivekananda









- 226. The biography of Ratan Tata "Ratan N. Tata: The Authorized Biography" is penned by whom? **Dr Thomas Matthew**
- 227. Which International Airport has ranked eighth in Global List for "On-Time Performance"? **Chennai International Airport**
- 228. World Hindi Day is celebrated on which day of at the global stage? 10 January
- 229. Losoong (Namsoong) is annually celebrated across which Indian State on the 18th day of the 246. 10th month of the Tibetan Lunar Calendar? Sikkim
- 230. Which day has been declared as "Veer Baal" Diwas" by the Prime Minister of India? 26 December
- 231. A new book titled "Mamata Beyond 2021" 248. authored by whom? Jayanta Ghosal
- 232. World Day of War Orphans is observed every year on which day of January? 6 January
- 233. India has invited a total of 46 friendly foreign countries to participate in which multinational naval exercise in Visakhapatnam? Exercise 250. Milan
- **234.** World Braille Day is observed annually on which day of January every year to highlight the significance of Braille? January 4
- 235. Abdalla Hamdok, who has resigned recently, was the Prime Minister of which country? Sudan
- 236. Governor of Sikkim has named the Jawahar Lal Nehru Marg after whose name? Narendra Modi Marg
- 237. Which state has secured first place among the 34 states and Union Territories that implement the Shyama Prasad Mukherji Rurban Mission (SPMRM)? Telangana
- 238. Which state has been topped among larger states in the index "Healthy States, Progressive India" released by NITI Aayog? Kerala
- 239. The Indian National Congress (INC) has recently celebrated its 137th foundation day on which day of December? 28 December
- **240.** Vice-President of India M Venkaiah Naidu has released the book titled "The Turnover Wizard -Saviour Of Thousands". It is an autobiography of whom? Arup Roy Choudhury
- 241. Which state to establish separate directorate to raise farmers' income? Karnataka
- 242. The foundation stone of Hydropower Projects worth over Rs 11,000 crore has laid down by

- Prime Minister Modi in which state? Himachal **Pradesh**
- 243. Which State government launched the "CM Dashboard 360" a monitoring system to track all welfare schemes? Tamil Nadu
- 244. International Arbitration and Mediation Centre inaugurated in which state? Telangana
- January since 2006 to promote the Hindi language 245. With the addition of the three new districts namely Tseminvu. Niuland and Chumoukedima. Nagaland will now have how many districts? 15
  - Which state's assembly has unanimously passed a resolution demanding the repeal of Armed Forces Special Powers Act in the state? Nagaland
  - Which Airways has become the first airline to use sustainable aviation fuel produced commercial scale? British Airways
  - Which country has invited India for recommitting two countries towards further strengthening the long-standing dynamic partnership? Bangladesh
  - 249. Recently, United Nations General Assembly has granted Observer Status to which international organisation? International Solar Alliance
  - Which country has launched the "Future Soldier" modernisation plan for their military presence? UK



Importance: To mark the inception of interim Indian Coast guard on 1 February 1977 to prevent sea-borne smuggling of goods.

#### Edition: 45th

This day is an opportune moment to reaffirm their resolute commitment and selfless service for safeguarding maritime interests of our nation. The ICG in its present shape was formally inaugurated on 18th August 1978

Fact: India's 7516.60 kilometer coastline encompasses various states and some of the busiest trade routes kilometer coastline.

Note: There are 9 Indian states and 4 Union Territories situated on the coast. These include Guiarat, Daman and Diu, Maharashtra, Goa, Karnataka, Lakshadweep, Kerala, Tamil Nadu, Puducherry, Andaman and Nicobar Islands, Andhra Pradesh, Odisha and West Bengal







# **Recent Appointments**

# Honda Cars India appoints Takuya Tsumura as **CEO** and President



Japanese auto major Honda Motor Co. Ltd. has announced the appointment of Takuya Tsumura as the new President & CEO of Honda Cars India Ltd (HCIL) with effect from 1 April 2022. The appointment comes as part of the management changes announced annually by the company. Tsumura will take over from Gaku Nakanishi, who moves from India to regional headquarters in Asia and Oceania region - Asian Honda as General Manager, Automobile Business for the region. Tsumura has been associated with Honda Motor for more than 30 years. He has worked in several international markets including Thailand, Australia, China, Japan, Turkey, Europe and Asia & Oceania regions. Tsumura was incharge of South Asian countries, including India from 1997 to 2000.

#### IOC Athletes' Commission Re-elected Emma Terho as its Chairpeeson



The International Olympic Committee Athletes' Commission re-elected ice hockey player Emma Terho of Finland as its Chair and table tennis player Seung Min Ryu of Republic of Korea as its first ViceChair (VC). The commission also elected cyclist Sarah Walker of New Zealand as second VC of the Commission.

# The elected players:

- Emma Terho is a five-time Olympian and former captain of the Finland women's ice hockey team. She secured bronze medals at both the Olympic Winter Games Nagano 1998 and Vancouver 2010.
- She will be the head of the Commission until the Olympic Games Paris 2024.
- Seung Min Ryu, the table tennis player won a gold medal in the men's singles at Athens 2004, a team silver medal at London Olympics 2012 and a team bronze medal at Beijing Olympics 2008.
- She was elected to the IOC AC at Rio Olympic 2016 and then as Vice-Chair in Tokyo 2020 games.
- Sarah Walker is a three-time world champion in BMX (bicycle motocross) from New Zealand. In 2008 she competed in the inaugural Olympic women's BMX competition in the Beijing games. She secured a silver medal at the London Olympics 2012.

# **International Olympic Committee (IOC):**

- Headquarters: Lausanne, Switzerland
- President: Thomas Bach
- Founded: 1894

#### Vineet Joshi appointed as new CBSE chairman



Vineet Joshi has been appointed as the new chairman of the Central Board of Secondary Education (CBSE) with effect from February 14. He has been serving as Additional Secretary, Department of Higher Education and is the Director General of the National Testing Agency. Joshi has replaced IAS Manoj Ahuja. Manoj Ahuja, who was replaced by Joshi, was







appointed as CBSE's chairman on May 12, 2020. Ahuja has served as Special Director, Lal Bahadur Shastri National Academy of Administration, Department of Personnel and Training.

#### **CBSE**

The Central Board of Secondary Education (CBSE) is a national level board of education in India for public and private schools, controlled and managed by the Government of India.

Formation: 2 July 1929

Type: Governmental Board of Education

Headquarters: New Delhi, India

Parent organisation: Ministry of Education

Ilker Ayci appointed as new CEO, MD of Air India



Tata Sons has appointed Ilkar IC as the new CEO and MD of Air India. The Chairman of Tata Sons, N Chandrasekaran was a special invitee to the board meeting. The Air India Board decided to approved the appointment of Ilker Ayci as the CEO and MD of Air India after due deliberations. Ilker Ayci was previously serving as the Chairman of Turkish Airlines and was on the board of the company before that. Ilker Ayci will take charge of his new role on or before April 1, 2022. He has also previously served as the advisor of Recep Tayyip Erdoğan in 1994.

#### Air India:

Air India was founded by JRD Tata and the airline's history is synonymous with the annals of civil aviation in India. The first-ever Air India flight took off on October 15, 1932. Air India has a vast international and domestic network connecting the far-east, southeast Asia, US, UK, Europe, Canada, Australia, the Gulf and India's north-east, Ladakh and Andaman and the Nicobar Islands. Air India Express was launched as India's first budget international carrier in 2006 to connect smaller towns directly to the Gulf and South East Asia regions.

#### **Debashis Mitra elected as President of ICAI**



Debashis Mitra has been elected as the President of the Institute of Chartered Accountants of India (ICAI) for the year 2022-23. Mitra, who is serving his third term in ICAI Council, has been in the accounting profession for more than 34 years. Apart from being a Chartered Accountant, he is also a Cost Accountant and a Company Secretary. He holds a master's degree in commerce and is also a law graduate as well as a qualified Information Systems Auditor.

# Other appointments:

Aniket Sunil Talati has been elected as Vice President of the institute, which has more than 3.40 lakh members and over 7 lakh students. Talati, who has a master's degree in commerce, served as Chairman of Ahmedabad Branch of ICAI for the year 2014-15 and as Secretary, WIRC for the year 2017-18. Among other positions, he has served as Chairman of Financial Reporting Review Board (FRRB), Vice Chairman of CSR Committee and Convenor of Digital Re-Engineering & Learning Directorate of ICAI. He was also the Director of the ICAI Accounting Research Foundation (ICAI ARF).

German President Frank-Walter Steinmeier elected for 2nd term



German President Frank-Walter Steinmeier was elected for a second term by a special parliamentary assembly. Endorsed by most mainstream parties, Steinmeier won with a big majority. Earlier,







Steinmeier served as Foreign Minister under Former Chancellor Angela Merkel.

# Germany:

President: Frank-Walter Steinmeier

Capital: Berlin Currency: Euro

# Pankaj Tripathi Joins Krishi Network as Brand Ambassador



Cultino Agrotech Pvt Ltd, which runs agritech app Krishi Network has roped in film actor Pankaj Tripathi as a brand ambassador, with a view to reaching out to farmers to its app. Tripathi's background as a farmer resonates with the platform's aim to aid farmers to grow their profits by offering them solutions to critical decisions. The app is currently available in Hindi, Marathi, Punjabi, and English, and is planned to be launched in other languages soon. The startup plans to use the fresh funds to boost their artificial intelligence-based technology platform across India. Founded by IIT Kharagpur alumni Ashish Mishra and Siddhant Bhomia, Krishi Network leverages the growing rural internet penetration to create a platform that eases information accessibility for farmers and enables them to generate higher profits from their land.

Burkina Faso junta chief declared President



In Burkina Faso, the military junta has appointed lieutenant colonel Paul-Henri Sandaogo Damiba as the interim President of the country following the military coup. The 2022 Burkina Faso military coup took place on January 24, 2022, which was led by Damiba. President Roch Marc Christian Kaboré and Prime Minister Lassina Zerbo were disposed from their position and the parliament, government and constitution were declared dissolved. One of the world's poorest and most volatile countries, Burkina Faso is struggling with a jihadist campaign that has claimed more than 2,000 lives and forced around 1.5 million to flee their homes. The country has been suspended from the West African bloc ECOWAS, although it escaped sanctions following last week's restoration of the constitution.

# **Burkina Faso:**

Capital: Ouagadougou

Currency: West African CFA franc

# S. Kishore appointed as new SSC Chairman

Senior bureaucrat S. Kishore has been appointed as Chairman, Staff Selection Commission (SSC). According to an order issued by the Department of Personnel and Training (DoPT), the Appointments Committee of the Cabinet has approved the appointment of Kishore to the post in the rank and pay of Secretary to Government of India by temporarily upgrading the post and keeping the Recruitment Rules of the post in abeyance. Presently, he is serving as Special Secretary, Department of Commerce, Ministry of Commerce and Industry.

# **Staff Selection Commission:**

Headquarters: New Delhi

Formation: 4 November 1975

Pradip Shah appointed Pfizer India chairman



Pfizer India has appointed Pradip Shah as the chairman of its board following the resignation of RA Shah. He is the ex-managing director and a founding member of Crisil. Prior to founding Crisil, he assisted in founding HDFC in 1977. He has also served as a consultant to USAID, the World Bank, and the Asian





Development Bank. Pradip is a director on the board of several reputed companies. He is also a member of various prestigious committees/commissions. He is presently the Chairman of Indasia Fund Advisors. He holds an MBA from the Harvard Business School and is also a chartered accountant and a cost accountant.

# Dinesh Prasad Saklani named new NCERT director



Professor of history, Dinesh Prasad Saklani has been appointed as the new director of National Council of Educational Research and Training (NCERT)."The Central government has appointed Dinesh Prasad Saklani as director of NCERT for a period of five years or till he attains the age of 65 years, whichever is the earliest. Saklani is a professor with the department of history, ancient Indian history, culture and archaeology at HNB Garhwal University, Uttarakhand. He is also the director of the Chauras Campus of the university. A life member of the Indian History Congress, Saklani had earlier taught for eight years in the tourism department and IAS (pre) coaching Centre of HNB Garhwal University as a guest faculty and was a visiting fellow in Indian Institute of Advanced Study, Shimla. He was selected as a Lecturer in HNB Garhwal University in May 1992. Saklani takes charge of NCERT at a crucial period of the making of the four National Curriculum Frameworks and designing of the new school textbooks. He had earlier worked on a project of NCERT to develop a historical atlas for CBSE. Presently he is working on a major research project on Ramayana Tradition in Garhwal Himalaya funded by Indian Council of Historical Research.

# Bata India appoints Bollywood Actress Disha Patani as Brand Ambassador

Bata India Limited appointed Bollywood actress, Disha Patani as its Brand Ambassador. She will promote the brand and strengthen the youth connection to enhance footwear fashion among them.



Disha Patani is a popular actor known for her fashion sense and fitness in the fashion industry of India. Bata India is the largest retailer and leading manufacturer of footwear in India and is a part of the Bata Shoe Organization. Previously, Bata has associated with celebrities including Kriti Sanon, Sushant Singh Rajput, and cricket player Smriti Mandhana for promoting various labels under Bata. In January 2022, Legends League Cricket (LLC) appointed Jhulan Goswami as an Ambassador to its All Women Match Official Team.

#### **Bata India Limited:**

- CEO-Gunjan Shah
- Headquarters-Gurugram, Haryana
- Founded-1931

# Santishree Pandit appointed new Vice-Chancellor of JNU



Prof Santishree Dhulipudi Pandit of Savitribai Phule Pune University, Maharashtra has been appointed as the Vice-Chancellor of Jawaharlal Nehru University, Delhi. She is the first female Vice-Chancellor of JNU. Former Vice-Chancellor of Jawaharlal Nehru University Jagadesh Kumar has been appointed as the Chairman of University Grants Commission UGC. An alumnus of JNU, 59-year-old Pandit has been appointed for five years from the date she assumes the charge as JNU's 13th Vice-Chancellor. Pandit has been in the teaching field since 1988.









# Jawaharlal Nehru University:

Jawaharlal Nehru University was established in 1969 by an act of parliament. It was named after Jawaharlal Nehru, India's first Prime Minister. G. Parthasarathy was the first vice-chancellor.

# Akshay Kumar named brand ambassador of Uttarakhand



Bollywood actor Akshay Kumar has been named as the brand ambassador of Uttarakhand. In 2017, Akshay Kumar was also named Uttarakhand's brand ambassador for 'Swachhata Abhiyan'. The actor did not charge any fee for the same and added that it was an honour for him to be associated with the campaign. Apart from Akshay Kumar, cricketer Rishabh Pant appointed as Uttarakhand's was also ambassador in December 2021.

#### **Uttarakhand:**

Governor: Gurmit Singh

Chief minister: Pushkar Singh Dhami

Capitals: Dehradun (Winter), Gairsain (Summer)

Italy's President Mattarella sworn in for 2nd term



Italian President Sergio Mattarella has been sworn into office to serve a second seven-year term. The 80year-old agreed to remain as head of state after Italian political parties failed to agree on a successor. Mattarella is the second president to accept another term after Giorgio Napolitano, who agreed to stay on after a similar political stalemate, before eventually leaving office in 2015 when he was nearly 90.

## Italy:

Capital: Rome

Currency: Euro

Prime Minister: Mario Draghi

#### Vice-Chancellor M Jagadesh Kumar appointed as UGC Chairperson



Jawaharlal Nehru University (JNU) Vice-Chancellor M Jagadesh Kumar was appointed as the Chairperson of the University Grants Commission (UGC). The post fell vacant after Professor DP Singh announced his retirement in December 2021. Meanwhile, Kumar's five-year term as JNU Vice-Chancellor ended on January 26, but he was allowed to continue till his successor was chosen.

#### UGC:

Chairman: Dr Mamidala Jagadesh Kumar

Govt appoints former civil servant Ravi Mittal as **IBBI** chairperson



The former secretary, Department of Sports, Ravi Mittal has been appointed as the Chairman of Insolvency and Bankruptcy Board of India (IBBI), as per the notification issued by the Ministry of Corporate Affairs. He is a 1986 batch IAS officer from Bihar cadre. He will serve as the Chairman of IBBI for a term of five years or till he attains 65 years of age, whichever is early.







# Lt Gen GAV Reddy succeeds Lt Gen KJS Dhillon as Defence Intelligence Agency head



Lieutenant General GAV Reddy has been appointed as the new head of the Defence Intelligence Agency. General Reddy would be succeeding Lt Gen KJS Dhillon. Lieutenant General KJS Dhillon retired after serving in various strategic positions during his 39year career in the Indian Army. The Director-General of the Defence Intelligence Agency is the head of the organisation and is among the principal advisors on intelligence to the Minister of Defence and the Chief of Defence Staff. The post of the director general is held on a rotation basis between the three Armed services. The first Director-General of the DIA was Lt Gen Kamal Davar, former director-general of the Indian Army's Mechanised Forces.

# Portugal re-elects socialist prime minister Antonio Costo



The Prime Minister of Portugal, Antonio Costo has been re-elected after his centre-left Socialist Party secured a landslide victory in the 2022 Portuguese legislative election. Socialist Party bagged 117 seats in the 230 seats Parliament. Despite predictions of a tight race, the main opposition centre-right PSD party landed 27.8 per cent for 71 seats. Antonio Costo is serving as the 119th Prime Minister of Portugal since 26 November 2015.

# Xiomara Castro sworn in as first female President of Honduras



Xiomara Castro was sworn in as the first woman President of Honduras in a ceremony attended by US Vice President Kamala Harris. Ms Castro's husband. Manuel Zelaya, ruled the country from 2006 until 2009, when he was ousted by a coup. She ran for office twice in the years following his removal from power, before her victory in the election last November. The former first lady takes over after two terms of President Juan Orlando Hernandez.

# Govt appoints Anantha Nageswaran as Chief **Economic Advisor**



Dr V. Anantha Nageswaran has been appointed Chief Economic Advisor to the government of India. He assumed charge yesterday. Prior to this appointment, Dr. Nageswaran has worked as a writer, author, teacher and consultant. He has taught at several business schools and institutes of management in India and in Singapore. Dr. Nageswaran was the Dean of the IFMR Graduate School of Business and a distinguished Visiting Professor of Economics at Krea University. He has also been a part-time member of the Economic Advisory Council to the Prime Minister of India from 2019 to 2021. He holds a Post-Graduate Diploma in Management from the Indian Institute of Management, Ahmedabad and a doctoral degree from the University of Massachusetts in Amherst.







# **National News**

# '1 Class, 1 TV channel' programme for educating students expanded to 200 channels

The government will expand the PM e-Vidya programme of 'One Class, One TV programme' from 12 to 200 television channels. This will enable states to provide supplementary education in regional languages for classes 1-12. Finance Minister also announced that a digital university will be set up for "world-class quality" education for students in different Indian languages. The education will be provided as per ISTE Standards. High-quality econtent to be developed and teachers will be skilled in means of providing digital learning.

# What is PM eVIDYA initiative?

The initiative was launched in 2020 by the Central government as part of the Aatma Nirbhar Apna Bharat program to provide technology-driven education to students during the COVID-19 pandemic, which led to a shutdown of schools.12 DTH channels were introduced as part of the 'One Class, One TV channel initiative'. Community and radio podcasts for visually and hearing-impaired students were also included under this initiative. Under the PM eVIDYA scheme, two portals, namely DIKSHA and NISHTHA were provided. Under the Digital Infrastructure for Knowledge Sharing (DIKSHA) portal, students from classes 1 to 12 were provided with portals which could be accessed with QR codes and contained NCERT, CBSE and NIOS related online books. The National Initiative for School Head's and Teacher's Holistic Advancement (NISHTHA) portal was for teachers in order to help them in training for digital delivery of classes so that the learning outcomes of students could be improved.

# Prime Minister Inaugurated Bio-CNG Plant in **Indore**

Prime Minister Narendra Modi inaugurate Gobar-Dhan (Bio-CNG) Plant in Indore, Madhya Pradesh through video conferencing. Mr Modi has recently launched the Swachh Bharat Mission Urban 2.0, with the overall vision of creating Garbage Free Cities. The Mission is being implemented under the overarching principles of waste to wealth and circular economy for maximising resource recovery and both of which are

exemplified in the Indore Bio-CNG plant. The plant has a capacity to treat 550 tonnes per day of segregated wet organic waste. It is expected to produce around 17 thousand kilograms per day of CNG, and 100 tonnes per day of organic compost. The plant is based on zero-landfill models, whereby no rejects would be generated. Additionally, the project is expected to yield multiple environmental benefits like reduction in greenhouse gas emissions, providing green energy along with organic compost as fertiliser.

# What is biogas CNG?

Bio-CNG, a methane rich compressed fuel, is also known as compressed biomethane. Bio-CNG is produced from pure biogas containing more than 97% methane at a pressure of 20–25 MPa. It is very similar to the regular CNG in terms of its fuel properties, economy, engine performance, and emissions.

# Lavender designated as brand product of J&K's Doda district, the birthplace of Purple Revolution

The Union Minister of Science & Technology, Dr Jitendra Singh, chaired the District Development Coordination & Monitoring Committee (DISHA) meetings of several districts in Jammu & Kashmir recently. A key decision taken during the meeting was to designate Lavender as a Doda brand product, to promote lavender under the 'One District, One Product' initiative of the Modi Government.Doda district in J&K is the birthplace of India's Purple Revolution or the cultivation of Lavender. Though, Lavender cultivation is practised in almost all the 20 districts of Jammu & Kashmir.

#### **Details:**

Purple Revolution (Lavender cultivation) was launched under the Aroma Mission of the Union Ministry of Science & Technology. The AROMA mission is implemented by the Council of Scientific & Industrial Research (CSIR) through its Jammu-based laboratory, the Indian Institute of Integrative Medicines (IIIM). The Mission's objective is the cultivation of important medicinal and aromatic plants domestically to empower domestic farmers and support India's aromatic crop-based agro-economy by reducing imports of aromatic oils and increasing homegrown varieties. The Lavender crop is however a native to Europe.







# Assam Becomes First State to launch India's First Night Navigation App for ferry services

Chief Minister (CM) of Assam, Himanta Biswa Sarma launched India & first Night Navigation mobile application (app) for ferry services on Brahmaputra river in Guwahati, Assam.

It was developed by the State Transport Department in association with K Raju, the principal scientist of IIT (Indian Institute of Technology) Madras.

# **Highlights:**

- The first night journey of the IWT (Inland Water Transport) ferry between Guwahati and North Guwahati was started on 19 February 2022.
- The CM also launched ten Aadhar-based contactless services of the State Transport Department to make public service delivery time efficient and budget friendly.
- The CM also launched an e-ticketing system for Dhubri and Silchar ferry services.
- > A Memorandum of Understanding (MoU) was also signed between the Common Service Centres (CSCs) under the Ministry of Electronics and Information Technology and State Transport Department to provide online services at the panchayat level.

#### Assam:

- Governor: Jagadish Mukhi
- Dam: Karbi Langpi Dam, Umrong Dam

#### approves Rashtriya Government Uchchatar Shiksha Abhiyan scheme to continue till 31st March 2026

The Government has approved the scheme of Rashtriya Uchchatar Shiksha Abhiyan (RUSA) for continuation till 31st March 2026. The proposal entails an expenditure of over 12 thousand 929 crore rupees. It has been envisaged to support around one thousand 600 projects under the new phase of the scheme. RUSA is a Centrally Sponsored Scheme, operating in mission mode for funding the state government universities and colleges to achieve the aims of equity, access, and excellence. The new phase of the scheme has been designed to implement some of the recommendations and aims of the New Education Policy. It suggests some key changes to the current higher education system to revamp and reenergize it. Under the new phase of the scheme, State Governments will be supported for Gender inclusion,

Equity Initiatives, Enhancing employability through vocationalisation and skill upgradation. States will also be supported for creation of new Model Degree Colleges. Besides State Universities will be supported for Multi-Disciplinary Education and Research. Grants will be provided for strengthening both accredited and non-accredited Universities and Colleges for undertaking various activities including teaching-learning in Indian languages.

# Water Taxi Service Flagged Off in Mumbai

Mumbai is now home to water taxi service, which was virtually flagged off by the Union Minister of Ports, Shipping and Waterways & AYUSH Sarbananda Sonowal. The first water taxi was flagged off from the city's Belapur Jetty, which was inaugurated by Maharashtra Chief Minister, Udhav Thackeray. The water taxi will connect Mumbai with Navi Mumbai, and will only take 30 minutes of travel time. The water taxis will also connect other locations such as Elephanta Island, Belapur, Nerul, and Jawaharlal Nehru Port Trust. Travellers from Navi Mumbai can reduce travel time by 3 hours and visit the Gateway of India with the help of this water taxi service. The Belapur Jetty was constructed for a cost of INR 8.37 crore. "The new jetty will enable movement of vessels to locations like Bhaucha Dhakka, Mandwa, Elephanta and Karanja.

# Ministry of Education Approved "NILP" a new scheme of Adult Education

Government approved a new scheme "New India Literacy Programme (नव भारत साक्षरता कार्यक्रम) for the period FYs 2022-2027 to cover all the aspects of Adult Education to align with National Education Policy 2020 and Budget Announcements 2021-22. National Education Policy 2020 has recommendations for Adult Education and Lifelong Learning. The Union Budget 2021-22, announcement had been made to enable increased access of resources, online modules covering the entire gamut of adult education will be introduced.

#### **Objectives:**

- Critical life skills
- > Vocational skills development
- Basic education
- Continuing education







## **Implementation of the Scheme:**

The scheme is implemented to registered volunteers and accessed through online mode. Materials and resources to be provided through digital mode. The physical and financial progress of States/UT's viewed through the Unified District Information System for Education(UDISE) portal.

# **Ministry of Education (MoE):**

- Founded: 15 August 1947
- Headquarters: New Delhi
- Union Minister: Dharmendra Pradhan

# Gujarat announces new biotechnology policy for 2022-27

Gujarat Chief Minister Bhupendra Patel has announced a new Biotechnology Policy for the year 2022-27. The aim of this policy is to achieve Prime Minister Narendra Modi's vision Atmanirbhar Bharat. Under this policy, strategic projects and bigger and bigger projects are eligible for the special package. This will attract new investment through langar units and existing industries and new employment opportunities will be created in the state. Under this new policy, MSMEs with capital investment of less than Rs 200 crore will be given maximum assistance of Rs 40 crore. Similarly, mega and large projects with capital investment of more than Rs 200 crore and special projects such as ecosystem empowerment, emerging technologies in challenging areas and of strategic importance will be allowed up to 25 per cent of the total capital expenditure up to a maximum of Rs 200 crore, assistance will be provided. This assistance will be provided in the form of 20 quarterly installments over five years. MSME units with capital investment less than Rs 200 crore will be given a maximum assistance of Rs 5 crore per annum. Mega and large projects with capital investment of more than Rs 200 crore and special projects like ecosystem empowerment will be given 15 per cent of the total operating cost, subject to a maximum of Rs 25 crore per annum.

# LAHDC launched "Kunsnyom scheme" differently abled persons

Ladakh Autonomous Hill Development Council (LAHDC), Leh has launched Kunsnyoms scheme for differently-abled persons. Kunsnyoms means Equal for All, Fair for All and aims inclusive and accessible Ladakh. Under this, Leh Hill council is providing assistive devices, technologies to needy people at 90 percent subsidy. Under the scheme, 28 tri-scooters, battery-run wheelchair, walking aids and other aids required for special needs of the individuals has been distributed.

# Govt launches scheme for economic empowerment for DNTs

Government launched a Scheme for Economic Empowerment for DNTs, SEED for the welfare of De-notified, Nomadic and semi-nomadic communities in New Delhi. De-notified Tribes communities are the most neglected, marginalized and economically and socially deprived communities. Historically, these communities never had access to private land or home ownership and used forests and grazing lands as a mean for their livelihood and residential use. This scheme with free education opportunity, health insurance worth five lakh rupees under Ayushman Bharat, better facilities for livelihood and financial assistance for construction of houses, will prove to be a game changer towards empowering the De-Notified Tribes communities.

#### What is SEED?

Scheme for Economic Empowerment of DNT Communities (SEED) is a welfare scheme for De-Tribes (DNT) having following four notified components: -

- 1. To provide coaching of good quality for DNT candidates to enable them to appear in competitive examinations.
- To provide Health Insurance to them.
- 3. To facilitate livelihood initiative at community level; and
- 4. To provide financial assistance for construction of houses for members of these communities.

# Indian Railways to set up country's biggest Wrestling Academy

Ministry of Railways has approved to set up a stateof-art wrestling academy in Indian Railways, at Kishangani, Delhi. The wrestling academy will be the biggest in India and equipped with advanced training facilities to promote the sports of wrestling in the country. The project will be set up at an estimated cost of Rs 30.76 crores. According to the ministry, the











national transporter has played a key role in promoting wrestling in the country and most of the elite wrestlers in India are from Indian Railways. The academy will offer the best sports facilities to sportspersons, and provide an opportunity for many budding wrestlers to become champions in the coming time.

# **Ministry of Railways:**

- Formed: March 1905
- Minister of Railways: Ashwini Vaishnaw
- > Deputy Ministers: Raosaheb Danve, Darshana Jardosh
- Chairman & CEO: Vinay Kumar Tripathi

# Himachal gets its first biodiversity park at Mandi's **Bhulah valley**

Himachal Pradesh's first biodiversity park has come up at Mandi's Bhulah valley at a cost of ₹1 crore. The park aims to boost tourism activities and provide new opportunities for researchers to conduct in-depth exploration of various medicinal herbs found in the Himalayas. A herbal nursery has also been set up in the park. The park, expected to be thrown open in a few months, has been created under the National Mission on Himalayan Studies (NMHS) project of the HP Forest Department. This is the first park in the state that will focus on conservation of endangered herbs. It has been designed to link tourism activities and provide new opportunities to researchers to study various medicinal herbs found in the Himalayas that are on the verge of extinction.

# **Himachal Pradesh**

- Chief minister: Jai Ram Thakur
- ➤ Governor: Rajendra Vishwanath Arlekar
- Capitals: Shimla (Summer), Dharamshala (Winter)
- Official bird: Western tragopan

# Nitin Gadkari inaugurates 14.5 km long rail-cumroad-bridge over Ganga river at Munger in Bihar

The Union Minister of Road Transport and Highways, Nitin Gadkari and Bihar Chief Minister Nitish Kumar jointly inaugurated the 14.5-kilometre long 'Rail-cum-Road-Bridge' in Bihar. The much-awaited bridge is constructed over the River Ganga on NH 333B in Bihar's Munger region. The cost of the 'Rail-cum-Road-Bridge' project is Rs 696 crore. The new bridge will reduce travel time, give a boost to tourism, agriculture as well as generate employment opportunities. One of Bihar's major tourist and pilgrimage sites, the city of Munger is well known for its rich ancient history, culture, education and commerce. With the construction of this Rail-cum-Road-Bridge, the distance from Munger to Khagaria will be less than 100 kilometres and also, the distance from Munger to Begusarai will be less than 20 kilometres.

#### Bihar:

- Governor: Phagu Chauhan
- Capital: Patna
- Chief minister: Nitish Kumar

# President Ram Nath Kovind inaugurates politically significant Durbar Hall at Raj Bhavan

President of India, Ram Nath Kovind has inaugurated the Durbar Hall at Raj Bhavan, situated at Malabar Hill, Mumbai. While retaining the heritage features of the old court hall, the new hall has been given additional features such as a balcony and a sea view gallery. Durbar Hall has political importance as it has been associated with oath-taking ceremonies of the Governors, chief ministers of the state. Earlier, the inauguration of Durbar Hall was scheduled on December 8, 2021, but it was postponed due to the sudden demise of General Bipin Rawat, chief of defence staff in a helicopter crash.

#### **Durbar Hall:**

Most of the swearing-in ceremonies were held at the Durbar Hall only until 1995 when Manohar Joshi took oath as the chief minister at Shivaji Park at Dadar for the first time. The new Durbar Hall is built on the site of the old Durbar Hall and has a seating capacity of 750. Chief minister Uddhav Thackeray also took oath of the position at a grand event held at Shivaji Park on November 29, 2019. Thackeray also informed that the map of Unified Maharashtra was inaugurated here at Durbar Hall at the hands of the then prime minister Pandit Jawaharlal Nehru.

# **Union Minister for Social Justice & Empowerment** Dr. Virendra Kumar to launch "SMILE" scheme

Union Minister for Social Justice & Empowerment Dr. Virendra Kumar will launch the Central Sector scheme "SMILE: Support for Marginalized Individuals for Livelihood and Enterprise" at BHIM Auditorium New Delhi. This umbrella scheme, under











the aegis of Department of Social Justice & Empowerment, is designed to provide welfare measures to the Transgender community and the people engaged in the act of begging. Union Ministers of State for Social Justice & Empowerment Shri A. Narayanaswamy and Sushri Pratima Bhoumik will also remain present on the occasion. The scheme includes two sub-schemes-'Central Sector Scheme for Comprehensive Rehabilitation for Welfare Transgender Persons' and 'Central Sector Scheme for Comprehensive Rehabilitation of engaged in the act of Begging'. The scheme strengthens and expands the reach of the Rights that give the targeted group the necessary legal protection and a promise to a secured life. It keeps in mind the social security that is needed through multiple dimensions of identity, medical care, education, occupational opportunities and shelter. The Ministry has allocated Rs. 365 Crore for the scheme from 2021-22 to 2025-26.

#### Tibetan govt-in-exile launches museum Himachal's Dharamshala

President of Tibetan government-in-exile Penpa Tsering inaugurated a new Tibet museum in Himachal Pradesh's Dharamshala that will be focused on the political side of the Tibetan struggle. The museum was inaugurated under the department of Information International Relations, Tibetan Central Administration. The museum will focus on the struggle of the Tibetan people, hospitality granted by the Indian and the other governments around the world who supports the Tibetan cause.

## **Himachal Pradesh:**

- Capital: Shimla (Summer), Dharamshala (Winter)
- Governor: Rajendra Arlekar
- Chief Minister: Jai Ram Thakur

# J&K becomes the first Union Territory to be integrated with National Single Window System

In a historic achievement, Jammu & Kashmir became the first Union Territory to be onboarded the National Single Window System (NSWS). This marks a major leap in Ease of Doing Business (EoDB) in the Union Territory. NSWS is linked with India Industrial Land Bank (IILB) which hosts 45 industrial parks of J&K. This will help Investors to discover available land parcels in J&K. The NSWS, a 2020 budgetary announcement of the Government of India, is a digital platform that serves as a guide for investors to identify and to apply for approvals as per their business requirements. The platform was soft launched in September 2021 by the Union Minister for Commerce and Industry, Textiles and Consumer Affairs, Food and Public Distribution, Shri Piyush Goyal. NSWS will eliminate the need for investors to visit multiple platforms/offices to gather information and obtain clearances from different stakeholders.

#### **ASEAN-India** High Level Conference on Renewable Energy held on 7-8 February

The ASEAN-India High Level Conference on Renewable Energy was organized on 7-8 February, 2022 by the Ministry of New and Renewable Energy and the Ministry of External Affairs, Government of India. The high level conference, over a period of two days, will focus on the theme 'Experience and Innovation for an Integrated Renewables Market' The ASEAN-India High Level Summit will have five technical sessions, which will facilitate peer-to-peer discussions between experts from India and ASEAN on topics of mutual interest. The session will provide global audience, including policy makers, professionals, academics and students from across the world, a glimpse of India-ASEAN plans to advance their collaboration in renewable energy.

#### ASEAN

- Headquarters: Jakarta, Indonesia
- Founded: 8 August 1967
- Founders: Narciso Ramos, Abdul Razak Hussain, S Rajaratnam, Adam Malik, Thanat Khomean

# K'taka launches self-defence training programme for 50,000 girl students

Karnataka government has launched a self-defence training programme 'Obavva Art of Self Defence Training' for 50,000 girl students in schools and colleges. This training programme is organised by the Social Welfare department of Karnataka. The Home Department has been instructed to use Police Training Schools to provide self-defence training to women. The State government has decided to induct 7,500 more NCC cadets annually with an allocation of Rs 1200 per cadet. "75 more NCC units would be started in schools and colleges. NCC Cadet strength in the state would be raised to over 50,000 by 2023.

## Karnataka

Governor: Thawar Chand Gehlot









- Chief minister: Basavaraj Bommai
- Capital: Bengaluru (Executive Branch)

# Chandigarh launches toll-free helpline for senior citizens

A toll-free helpline to assist senior citizens in Chandigarh was launched by UT Adviser Dharam Pal. 'Elder Line 14567' will operate from 8 am to 8 pm throughout the week. It will address grievances and queries of the elderly government schemes and programmes. It will also provide immediate aid in case of abuse and extend emotional support.

# Puniab:

Capital: Chandigarh

Governor: Banwarilal Purohit

Chief minister: Charaniit Singh Channi

# PM Modi to dedicate Nation 216-feet Statue of **Equality in Hyderabad**

Prime Minister Narendra Modi will visit visit the International Crops Research Institute for the Semi-Arid Tropics campus in Patancheru, Hyderabad, and kickstart the 50th Anniversary celebrations of the Institute. Prime Minister will dedicate the 'Statue of Equality' in Hyderabad to the nation. The 216-feet tall Statue of Equality commemorates the 11th-century Bhakti Saint Sri Ramanujacharya, who promoted the idea of equality in all aspects of living including faith, caste, and creed.

#### **Details:**

The Statue is made of 'panchaloha', a combination of five metals. These are gold, silver, copper, brass, and zinc. It is among one of the tallest metallic statues in sitting positions in the world. It is mounted on a 54feet high base building, named 'Bhadra Vedi'. It has floors devoted to a Vedic digital library and research centre, ancient Indian texts, a theatre, an educational gallery detailing many works of Sri Ramanujacharya. The statue has been conceptualized by Sri Chinna Jeeyar Swami of Sri Ramanujacharya Ashram.

# India's first geological park to come up at Madhya Pradesh's Jabalpur

The first geological park of India will be built in Lamheta, Jabalpur in Madhya Pradesh. Approval for the park was given by the Geological Survey of India, under the ministry of mining. Park will be constructed with an investment of Rs 35 crores, over five-acre land. The geological park will be built in Lamheta, because this place is among significant places in the world, from the geological point of view. In 1928, William Henry Sleeman had discovered a Dinosaur fossil from this area. UNESCO has also recognised Lamheta as a geo heritage site. Lameta Formation is also called Infratrappean Beds. It is a sedimentary geological formation found in Madhya Pradesh, Maharashtra and Gujarat. It is associated with the Deccan Traps. It is of the Maastrichtian age and is known for dinosaur fossils.

# Madhya Pradesh:

Capital: Bhopal

Governor: Mangubhai C. Patel

Chief Minister: Shivraj Singh Chouhan

# Govt setting up National Land Monetisation Corp

According to Economic Survey, the government is setting up the National Land Monetisation Corporation (NLMC) to carry out the monetization of the land and other non-core assets. The initial authorized share capital of NLMC will be Rs 5000 crores and subscribed share capital of ₹150 crores. So far, CPSEs have referred 3,400 acres of land and other non-core assets for monetization from CPSEs including MTNL, BSNL, BPCL, B&R, BEML, HMT Ltd, Instrumentation Ltd.

#### **National** Land Monetisation Corporation (NLMC):

The National Land Monetisation Corporation (NLMC) is being set up in accordance with the Budget announcement. It is being set up as a 100 per cent Government of India owned entity. The initial authorised share capital will be Rs 5,000 crore while subscribed share capital will be Rs 150 crore. It works as an asset manager for lands owned by central government and central public sector enterprises (CPSEs). It has the freedom to invest, lease or rent assets or monetise them based on suggestions by many sources. It is free to develop assets for commercial or residential purposes.

# Defence Ministry makes induction of women fighter pilots in IAF a permanent scheme

Defence Ministry has decided to convert the Experimental Scheme for Induction of Women Fighter Pilots in the Indian Air Force into a permanent







scheme. Indian Air Force undertakes various induction publicity measures to encourage youth, including women to join it. A total of 16 women have been commissioned as fighter pilots after the experimental scheme for their induction. Supreme Court had directed the Centre last year to allow women candidates to appear for the entrance exam to the National Defence Academy. In 2018, flying officer Avani Chaturvedi of the Air Force became the first Indian woman to fly a fighter aircraft solo. India's first woman Rafale fighter jet pilot Shivangi Singh captured the imagination of every girl child in the country when she took part in the Republic Day parade this year.

# **Ministry of Defence:**

Formed: 1776 (as Military Department), 15 August 1947 (as Ministry of Defence)

Minister: Rajnath Singh Deputy Minister: Ajay Bhatt

# Home delivery of medicines will begin under **SeHAT**

Ministry of Defence had launched the Services e-Health Assistance and Teleconsultation (SeHAT) medical teleconsultation service for all entitled armed forces personnel and their families in May 2021. To add further to this initiative, the Home Delivery or Self Pickup of Medicines to patients seeking consultation on SeHAT will be started w.e.f February 01, 2022.

## **SeHAT scheme:**

SeHAT stay home OPD is a patient-to-doctor system where the patient can consult a doctor remotely through the internet using his Smartphone, laptop, Desktop or Tablet. The consultation occurs through video, audio and chat at the same time. It aims to provide quality healthcare services to patients from the comfort of their homes. Safe and structured videobased clinical consultations between a doctor in a hospital, and a patient within the confines of his or her home anywhere in the country, have been enabled. It is designed to be extremely simple and easy to use, which requires minimal effort from the users. The user does not need to pay anything to seek teleconsultation & can simply access the services by visiting https://sehatopd.gov.in, or by using the SeHAT apps available on the Play store & App Stores.

# India's largest electric vehicle charging station inaugurated in Gurugram

India's largest electric vehicle (EV) charging station was inaugurated at Delhi-Jaipur National Highway in Gurugram, Haryana. The new charging station, which's developed by tech-piloting company Alektrify, has a capacity of 100 charging points for four-wheelers and has 72 AC slow chargers and 24 DC fast chargers. Previously, the largest EV charging station of India's was situated in Navi Mumbai.

#### Harvana:

> Capital: Chandigarh

Governor: Bandaru Dattatreya

Chief minister: Manohar Lal Khattar

# Kerala gets countrys first Graphene Innovation Centre

India's first innovation centre for graphene will be set up in Kerala by the Digital University Kerala (DUK), along with the Centre for Materials for Electronics Technology (C-MET) in Thrissur, for Rs 86.41 crore. This will be the first graphene Research and Development (R&D) incubation centre in the country. Tata Steel Limited is set to be the industrial partner of the centre. The Ministry of Electronics and Information Technology, Government of India, has given approval for the project. The project, which will be implemented with the support of the Kerala government, is expected to accelerate the state's growth in the knowledge industry sector.

# Graphene:

Graphene is known for its extraordinary electrical and electronic properties, and as per latest research, it could replace indium and thereby bring down the cost of OLED (organic light-emitting diode) screens in smartphones. Graphene has good chemical stability, high electrical conductivity and a large surface area while being transparent and lightweight.

# Kerala gets its first ever scientific bird atlas

Kerala Bird Atlas (KBA), the first-of-its-kind Statelevel bird atlas in India, has created solid baseline data the distribution and abundance of bird species across all major habitats, giving an impetus to futuristic studies. It is being conducted as a citizen sciencedriven exercise with the participation of over 1.000 volunteers of the birdwatching community KBA has









been prepared based on systematic surveys held twice over 60 days a year. Conducted as a citizen sciencedriven exercise with the participation of over 1000 volunteers of the bird watching community, KBA was prepared based on systematic surveys held twice over 60 days a year during the wet (July to September) and dry (January to March) seasons between 2015 and 2020.

#### Kerala:

Capital: Thiruvananthapuram Governor: Arif Mohammad Khan Chief Minister: Pinarayi Vijayan

# Ramgarh Set to Be Notified as 4th Tiger Reserve of Rajasthan

Ramgarh Vishdhari Wildlife Sanctuary, which is among the proposed five sites in the country, is expected to be formally notified as tiger reserve (TR) soon before the Global Tiger Summit, which is to be held at Vladivostok, Russia. The Centre also announced the development during the 4th Asia ministerial conference on tiger conservation. Centre has already given its approval of granting tiger reserve status to Ramgarh Vishdhari Wildlife Sanctuary, along with MM Hills in Karnataka, Guru Ghasidas National Park in Chhattisgarh.

#### Ramgarh Vishdhari Sanctuary:

The Ramgarh Vishdhari Sanctuary will be spread across 1,071 sq kms. A 302 Sq Km area in the proposed tiger sanctuary will be left as critical habitat for Tigers and the rest of the area will act as a buffer zone for the Ranthambore National Park. Ramgarh Vishdhari Wildlife Sanctuary was established in 1982. The core areas of the sanctuary have 8 villages and are home to large numbers of wild animals like sambhars. caracals, wild boars, nilgai, and striped Hyena.

# BSF launches boat ambulance service in Odisha; will benefit 30,000 people

On the occasion of 73rd Republic Day, the Border Security Force (BSF) launched 'Boat Ambulance' at BSF Camp Janbai in the remote location of Swabhimaan Anchal in Malkangiri district in Odisha. This boat ambulance is equipped with an oxygen support system and emergency medications along with trained medical staff. The need of a 'Boat Ambulance' was felt for the far flung population living specifically in GP Jantri and GP Panasput, so that

medical aid could be provided to them in the shortest possible time. Swabhimaan Anchal, the erstwhile Cut Off Area, was created when the Balimela dam came into being in 1977 which isolated 151 villages from the mainland. After four decades, the turning point came in 2018 when Gurupriya Bridge was built under the heavy protection of Border Security Force troops, making it feasible for the Security Forces & State Administration to venture into Maoist Bastion with a vision of development in the region.

# Bharati Pravin Pawar Launched India's & South Asia's 1st BSL-3 Containment Mobile Laboratory

Dr. Bharati Pravin Pawar, Minister of State, Ministry of Health and Family Welfare inaugurated India's and South Asia's first Biosafety level-3 (BSL-3) mobile laboratory containment in Nashik, Maharashtra. The mobile laboratory, which can commute to various locations, will provide a public health solution. This is a part of the Government of India's efforts to strengthen healthcare infrastructure through the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission.

#### **Mobile Laboratory:**

The mobile laboratory was designed and built by the Indian Council of Medical Research in collaboration with, Mumbai based manufacturer of Aseptic, Bioclean and Containment (bio-safety) equipment.

# **Features:**

The mobile laboratory is an airtight, access-controlled, bio-decontaminable, fitted with safe change HEPA (High-Efficiency Particulate Absorbing) filtration and biological liquid waste decontamination system.

The lab has every system and equipment required for full standalone operation. It is controlled through an intelligent control automation system. The system maintains the working environment under negative air pressure, maintains equipment parameters and records all necessary data.

# **Benefits:**

The lab will be able to access remote and forested areas of India, where specially trained scientists from the Indian Council of Medical Research can investigate outbreaks using samples from humans and animal sources. This will ensure timely and on-site diagnosis with a rapid turnaround time for reporting these outbreaks.









# **International Events**

# Russian President Putin recognizes separatist Ukrainian regions amid crisis

Russian President, Vladimir Putin has recognised the independence of separatist regions in eastern Ukraine - Donetsk and Luhansk. Putin's announcement paved the way for Russia to openly send troops and weapons to the long-running conflict pitting Ukrainian forces against Moscow-backed rebels. Russian-backed rebels have been fighting Ukrainian troops in Donetsk and Luhansk since 2014, with regular violence despite a ceasefire agreement. Putin signed decrees recognizing the Donetsk and Luhansk regions' independence, eight years after fighting erupted between Russiabacked separatists and Ukrainian forces, and called on lawmakers to approve measures paving the way for military support.

#### Russia:

Capital: Moscow Currency: Ruble

President: Vladimir Putin

# Nepal to become first country to deploy India's UPI platform for digitalisation of cash transactions

Nepal will be the first country to adopt India's UPI system, which will play a pivotal role in transforming the digital economy of the neighbouring country, the National Payments Corporation of India (NPCI). NPCI International Payments Ltd (NIPL), the international arm of NPCI, has joined hands with Gateway Payments Service (GPS) and Manam Infotech to provide the services in Nepal. GPS is the authorised payment system operator in Nepal and Manam Infotech will deploy Unified Payments Interface (UPI) in that country. The collaboration will serve the larger digital public good in Nepal and bolster interoperable real-time person-to-person (P2P) and person-to-merchant (P2M) transactions in the neighbouring country. "Nepal shall be the first country outside of India to adopt UPI as the payments platform driving the digitalization of cash transactions and furthering the vision and objectives of the Nepal Government and Nepal Rastra Bank as the Central bank".

Capital: Kathmandu Currency: Nepalese rupee

President: Bidhya Devi Bhandari Prime minister: Sher Bahadur Deuba

# WHO launches Quit Tobacco App to help people end Tobacco Consumption

The World Health Organization (WHO) launched the Quit Tobacco App to help people quit tobacco use in all forms including smokeless and other related products. It is a first-of-its-kind app which helps users identify the triggers, set their targets, manage cravings, and stay focused on quitting tobacco.

# **Key points:**

The 'WHO Quit Tobacco App' is the first such initiative of the WHO.It was launched during WHO's year-long 'Commit to quit' tobacco control campaign. The app helps in spreading awareness the harmful effect of consuming tobacco among the people. Every year, tobacco, which is the world's leading cause of preventable death, kills nearly eight million persons. In 2021, WHO launched a 1st of its kind Artificial Intelligence (AI) based virtual health worker called Florence to provide 24/7 digital counseling on quitting smoking.

# What's the deadly Lassa fever that's being reported after 13 years in UK?

One of the three people diagnosed with Lassa viral fever, in its latest outbreak after 13 years in the UK, has died of the disease. It is spread through contact with household items or food contaminated with urine or faeces of infected rats. Mild symptoms include slight fever, fatigue, weakness etc while severe symptoms include bleeding, difficulty breathing, vomiting etc.

#### **Fever**

Lassa fever, also known as Lassa hemorrhagic fever (LHF), is a type of viral hemorrhagic fever caused by the Lassa virus. Many of those infected by the virus do not develop symptoms. When symptoms occur they typically include fever, weakness, headaches, vomiting, and muscle pains. Less commonly there may be bleeding from the mouth or gastrointestinal









tract. The risk of death once infected is one percent and frequently occurs within two weeks of the onset of symptoms.

# Virology

Lassa virus is a member of the Arenaviridae, a family of negative-sense, single-stranded RNA viruses. Specifically, it is an old world arenavirus, which is enveloped, single-stranded, and bi-segmented RNA. This virus has both a large and a small genome section, with four lineages identified to date.

# Israel becomes first country allowing drones in civilian airspace

Israel becomes the first-ever country to allow drone flights in civilian airspace. The certification was issued to the Hermes Starliner unmanned system by the Israeli Civil Aviation Authority and was manufactured and developed by Elbit Systems, an Israeli defence electronics company. The UAVs will be used for the benefit of agriculture, the environment, public welfare, economic activity and against crime. For safety reasons, international aviation regulations prohibit uncertified aircraft from flying in civilian airspace, limiting the operation of UAVs to unsegregated airspace. The Hermes Starliner, which has a wingspan of 17 metres and weighs 1.6 ton, can fly for up to 36 hours at an altitude of 7,600 metres, and can carry an additional 450 kg of electro-optical, thermal, radar and other payloads. It will be able to participate in border security and anti-terror operations, take part in securing mass public events, perform maritime search and rescue, commercial aviation and environmental inspection missions, as well as precision agriculture work.

#### **Israel:**

Capital: Jerusalem

Currency: Israeli Shekel

President: Isaac Herzog

Prime minister: Naftali Bennett

# Indonesia to buy 42 Rafale jets as it boosts ties with France

Indonesia has agreed to buy six Rafale fighter jets produced by French manufacturer Dassault Aviation, with the acquisition of 36 more on the way. The two countries signed a series of agreements that also include submarine development and ammunition manufacturing. The deal comes as France seeks to expand geopolitical ties in the Indo-Pacific, with Indonesia becoming the second country in the region - after India - to acquire the aircraft. It also follows Australia's decision last year to cancel a multibilliondollar submarine deal with France in favour of a new strategic alliance with the United States and the United Kingdom, called AUKUS, that includes nuclear-powered submarines. The United Arab Emirates signed the biggest-ever deal for the jets in December to buy 80 aircraft for \$19bn, while its other foreign clients include Croatia, Egypt, Greece and Qatar.

#### Indonesia

Capital: Jakarta

Currency: Indonesian rupiah

President: Joko Widodo

# Export Import Bank of India, Sri Lanka sign \$500million loan agreement

Export-Import Bank of India (Exim Bank) on behalf of the government of India, extended a line of credit of \$500 million to the government of the socialist republic of Sri Lanka for financing the purchase of petroleum products. The fund will be used by the Island nation for the purchase of petroleum products. With the signing of this new LOC agreement, the total LOC extended by Exim Bank to Sri Lanka till date has reached 10, taking the total value of LOCs extended to USD 2.18 billion. With the signing of this LoC agreement, Exim Bank has now in place 276 lines of credit, covering 61 countries in Africa, Asia, Latin America and the Commonwealth of Independent States (CIS), with credit commitments of around \$27.84 billion, available for financing exports from Besides promoting India's exports, Exim Bank's LoCs enable the demonstration of Indian expertise and project execution capabilities in emerging markets.

# **Export-Import Bank of India:**

Founded: 1982

Headquarters: Mumbai

# Belgium's new passport features Tintin, Smurfs and other comic book heroes

Belgium has launched its new passport that has comic characters as its design theme. The European nation seeks to honour its heritage by referencing comic books like The Adventures of Tintin, The Smurfs,











Willy and Wanda and others in its passport. The unique design of the new document also makes it harder to duplicate. As per the Belgian government, the price of the new passport will remain unchanged at 35 Euros for minors and 65 Euros for adults. The 34page document has been developed in collaboration with anti-fraud specialists of the Federal Police. It is being manufactured by a consortium of companies including Thales and Zetes.

# **Belgium:**

Capital: Brussels

Prime Minister: Alexander De Croo

Currency: Euro

# Netherlands unveils 'world's-largest' canal lock

The world's largest canal lock has been inaugurated at Ijmuiden, a small port city, in the Port of Amsterdam, The Netherlands. The sea lock was inaugurated by Dutch King Willen-Alexander. The Ijmuiden sea lock is 500-meter (1,640-feet) long and 70-meter wide. Construction on the massive infrastructure project began in 2016 and was meant to be done by 2019. It also went over the initially planned budget by around €300 million (\$338 million). The Ijmuiden lock was designed to allow large, modern cargo ships to reach the port of Amsterdam. The structure is also deep enough that ships will no longer have to wait for a favourable water level to enter the canal. With almost

nine meters above the sea leave, the structure is also a defence against the threat of flooding.

#### **Netherlands:**

Capital: Amsterdam Currency: Euro

Prime minister: Mark Rutte

# Bangladesh parliament passes bill for Election **Commission formation**

The Bangladesh parliament Jatiya Sangsad passed the bill for the appointment of Election Commissioners and Chief Election Commissioner for the formation of the next Election Commission (EC). The bill was placed in the parliament by the law, justice and parliamentary affairs Minister Anisul Hug. The bill gives a legal shield to the appointments of the Chief Election Election Commissioner (CEC) and Commissioners to form the EC. The tenure of the current Election Commission ends on Feb 14. The bill envisages a six-member search committee appointed by the president to recommend the names of the Election Commissioners and CEC. The search committee will be headed by a judge of the Appellate Division nominated by the Chief Justice. Its members will include a High Court Division judge, the Comptroller and Auditor General, Chairperson of Public Service Commission and two eminent citizens including one woman.

"There is a powerful driving force inside every human being that, once unleashed, can make any vision, dream, or desire a reality."







# **Banking & Economy**

# Air India Formally Handed Over to Tata Group

The government of India officially handed over India's flag carrier, Air India to the Tata Group on January 27, 2022, almost 69 years after acquiring the conglomerate. The total value of the deal is Rs 18,000 crore (US\$2.4 billion). The strategic disinvestment transaction of Air India includes the transfer of a 100 per cent stake of GoI in Air India to Tata Sons, along with management control. The transaction covers three entities namely, Air India, Air India Express and Air India SATS (AI SATS). Under the deal, the Tata group will also be handed over Air India Express and a 50 per cent stake in ground handling arm AI SATS.

#### Tata Group:

Founder: Jamsetji Tata

Founded: 1868, Mumbai

Headquarters: Mumbai

# Dabur India Ltd Becomes India's 1st 100% Plastic Waste Neutral FMCG Company

Dabur India Limited(Dabur), one of India's leading Fast-moving consumer goods companies, announced that the company has become India's 1st 100% Plastic Waste Neutral company. Dabur is the first FMCG company to achieve this feat. Dabur collects, processes and recycles the same amount of plastic waste that is sold in its product packaging in a year, as a result of this the company has become a 'Plastic Waste Neutral company. Dabur India Limited is the 4th largest FMCG Company in India and the world's largest Ayurvedic and Natural Health Care Company.

# Plastic Waste Management Initiative of Dabur:

Dabur launched its plastic waste management initiative in 2017-2018. Under this initiative, as of February 2022, Dabur has collected a total of over 54,000 MT of plastic waste from across India.

#### **Dabur India Limited:**

> CEO: Mohit Malhotra

➤ Headquarters: Ghaziabad

Founder: S.K. Burman

Founded: 1884

# **SEBI** reconstitutes Alternative Investment Policy Advisory Committee, Chaired by NR Narayana Murthy

The Securities and Exchange Board of India (SEBI) has reconstituted its alternative investment policy advisory committee, which advises the capital markets regulator on a range of issues that impact further development of the AIF space. The committee has now 20 members, as per an update by the SEBI. The panel, which was constituted by SEBI in March 2015, earlier had 22 members. Till now, the committee has submitted three reports on the AIF (Alternative Investment Fund) industry.

#### Members of the committee:

The committee is chaired by Infosys co-founder N R Narayana Murthy. The committee includes members from SEBI, Ministry of Finance, AIF players and industry associations. Gopal Srinivasan, chairman and managing director, TVS Capital Funds; Gopal Jain, co-founder and managing partner, Gaja Capital; Vipul Roongta, managing director and CEO, HDFC Capital Advisors; and Renuka Ramnath, chairperson, Indian Private Equity and Venture Capital Association (IVCA) are among the members of the panel, as per SEBI. The other members include Prashant Khemka, founder and partner at White Oak Capital Management; Gautam Mehra, partner at PwC; Subramaniam Krishnan, partner at Ernst & Young; Deepak Ranjan, deputy director, DEA, Ministry of Finance; Mahavir Lunawat, vice chairman, Association of Investment Bankers of India (AIBI); and Sujit Prasad, executive director at SEBI.

# Bharti Airtel joins SEA-ME-WE-6 undersea cable consortium

Bharti Airtel joined the SEA-ME-WE-6 undersea cable consortium, participating as a major investor, while Reliance Jio would land its India-Asia-Xpress (IAX) undersea cable system in Hulhumale, Maldives. Bharti Airtel is participating as a "major investor" in the SEA-ME-WE-6 and is anchoring 20% of the overall investment in the cable system. Bharti said it had joined the 'SEA-ME-WE-6' consortium to scale up its high-speed global network capacity to serve India's fast-growing digital economy.









The 12 other consortium members of SEA-ME-WE-6 include Bangladesh Submarine Cable Company, Dhiraagu (Maldives), Djibouti Telecom, Mobily (Saudi Arabia), Orange (France), Singtel (Singapore), Sri Lanka Telecom, Telecom Egypt, Telekom Malaysia, and Telin (Indonesia). "Through SEA-ME-WE-6, Airtel will add a significant amount of 100 TBps capacity to its global network". Airtel has acquired one fibre pair on the main SEA-ME-WE-6 system and will co-build four fiber pairs between Singapore - Chennai - Mumbai as part of the cable system. Airtel will land the SEA-ME-WE-6 cable system in India at new landing stations in Mumbai and Chennai. SEA-ME-WE-6 will be integrated with Nxtra by Airtel's large data centres in Mumbai and Chennai to enable global hyperscalers and businesses to access integrated solutions and strengthen India's position as an emerging data centre hub in the region.

#### What is SEA-ME-WE 6?

SEA-ME-WE 6 is a proposed optical fibre submarine cable system communications carry telecommunications between Southeast Asia, the Middle East, and Western Europe. SEA-ME-WE-6 is a 19,200 km network, which will run from Singapore to France. It will have a bandwidth of 120 Tbps The system is scheduled to go LIVE in 2025. Once operational, it will be amongst the largest undersea cable systems globally.

# IRCTC, NPCI, BOB Financial Solutions launches IRCTC BoB RuPay Contactless Credit Card

BOB Financial Solutions Limited (BFSL), a wholly owned subsidiary of Bank of Baroda (BoB), and the Indian Railway Catering and Tourism Corporation Ltd (IRCTC) have launched the IRCTC BoB RuPay contactless credit card. The card is specially curated to offer maximum savings to frequent railway travellers. Users of this card will also get multiple benefits for shopping across other categories ranging from groceries to fuel. Cardholders can also use this card to transact at international merchants and ATMs through the JCB network.

## Benefits of IRCTC BoB RuPay card:

Cardholders of IRCTC BoB RuPay contactless credit card will be able to earn up to 40 reward points (₹100 spent) on 1AC, 2AC, 3AC, CC, or EC bookings made through the IRCTC website or mobile app. The card also offers a 1% transaction fee waiver for the customers on all their train ticket bookings. Customers making a single purchase worth ₹1,000 or more within 45 days of card issuance will get 1,000 bonus reward points. The co-branded credit card will offer 4 reward points (₹100 spent) on grocery and departmental stores and 2 reward points on other categories. Cardholders will be entitled to 4 complimentary visits per year at partner railway lounges. The card will also offer 1% fuel surcharge waiver across all petrol pumps in India.

# GoI launched 'Meri Policy Mere Hath' to deliver crop insurance policies

With the Pradhan Mantri Fasal Bima Yojana (PMFBY) entering the seventh year implementation in the upcoming Kharif season, the government has announced a new doorstep crop insurance distribution policy known as 'Meri Policy Mere Hath'. The 'Meri Policy Mere Hath' door-step campaign has been launched to ensure that all farmers are well informed their land records, policies, and the PMFBY's claim and grievance redressal process. In the upcoming Kharif season which will be beginning in June, the doorstep campaign will be launched in all implementing states.

# Pradhan Mantri Fasal Bima Yojana:

In the month of February 2016, PMFBY was launched with the aim of providing financial assistance to all the farmers who have suffered crop damage or loss from natural disasters. As of February 4, 2022, over 36 million farmer applications have been insured under this scheme with over Rs 1,07,059 crores in claims paid. Since 85 per cent of the farmers registered under this scheme are small and marginal farmers, the scheme has been able to provide financial support to the most vulnerable farmers.

#### JPMorgan becomes first bank to enter the metaverse

JPMorgan Chase & Co became the first bank to enter the metaverse by opening a lounge in Decentraland, a virtual world based on blockchain technology. The largest bank in the US has opened a lounge in the blockchain-based world Decentraland. Users can create their virtual avatars, build virtual spaces and roam in the lounge christened 'Onyx Lounge' after its suit of Ethereum-based services. The lounge also features a digital image of the bank's CEO Jamie Dimon.







#### What is Metaverse?

Metaverse is a virtual universe where users can do multiple activities like socialising, shopping or even attending events through their avatar. Augmented Reality (AR) and Virtual Reality (VR) headsets are becoming more pocket-friendly, and both together contributed technologies have to a significantly enhanced user experience.

# JPMorgan Bank:

- Headquarters: United States
- CEO: Jamie Dimon
- Founded: 1 December 2000
- Subsidiaries: Chase Bank, J.P. Morgan Equity Holdings, Inc.

# Aditya Birla Group Invested in Upcoming Digital bank Zand in UAE

The Aditya Birla Group has invested an undisclosed amount in Zand, an upcoming digital bank in the United Arab Emirates. Following the launch, Zand will be the first digital bank to provide both retail and corporate services. The interests of the Aditya Birla group include running a non-bank finance company and asset management firm. With this investment, Aditya Birla Group has joined the investors of Zand as shareholders in the bank. The other investors of Zand include Franklin Templeton, Al Hail Holding LLC, Al Sons Investments LLC, Global and Development Group, Mohamed Alabbar, Olivier Crespin, and Yusuff Ali M A as shareholders in the bank. Eradah Capital LLC (trading as Zanda) is a Private Limited Company registered in Abu Dhabi, UAE. Olivier Crespin will be the co-founder and Chief Executive of Zand and it aims to deploy 'Hybrid Digital strategies to build the lender. Zand, the Digital Bank is helmed by Dubai businessman Mohamed Zand, the Digital Bank is helmed by Dubai businessman Mohamed Alabbar.

# Standard Chartered Bank Launches Interest-only **Home Loan Facility**

Standard Chartered Bank India has launched the facility for completed residential properties where borrowers can pay only the interest without principal deduction during a limited period. This facility is available to both new and existing clients of Standard Chartered Bank.

Borrowers can choose to pay only the interest amount without principal through Equated Monthly Instalment for an initial period of up to 1-3 years, after which it will be treated like a normal loan account where the EMIs comprise of both the principal and interest till the maturity of the loan. Borrowers can also start their full instalments earlier with no penalty fees. The facility is available for a loan amount ranging from Rs 35 lakh to Rs 3.5 crore with the maximum tenure of 30 years for salaried individuals and 25 years for selfemployed individuals. Clients can also avail the Interest Only Home Loan facility to transfer their existing home loans from another financier to Standard Chartered.

# **Standard Chartered Bank:**

- CEO: Bill Winters
- Founded: 1969, London, United Kingdom
- Subsidiaries: Standard Chartered Hong Kong
- Parent organization: Standard Chartered Holdings Limited
- Founders: Chartered Bank of India, Australia and China, Standard Bank

# Yes Bank launches 'Agri Infinity' programme

YES BANK launches an annual startup enabler program, YES BANK Agri Infinity, which seeks to co-develop digital financial solutions for the food and agriculture ecosystem by mentoring entrepreneurial ventures in the field. As part of the agri-fintech enabler program, early as well as growth stage startups interested in exploring tech-enabled financial innovations in the agri space are invited to apply with their proposals. Those meeting the eligibility criteria will receive the guidance and support necessary to develop their solutions and apply them across the agricultural value chain. Through the initiative, a select cohort of startups will not only receive mentoring by veteran bankers for experiential codevelopment, but also get access to YES BANK's infrastructure banking and collaborative opportunities to pilot new solutions and fundraising advisory.

#### YES BANK:

- CEO: Prashant Kumar
- Headquarters: Mumbai
- Founded: 2004
- Subsidiaries: Dish TV, Yes Securities (India) Limited
- Founders: Rana Kapoor, Ashok Kapur











# Axis Bank set to buy Citigroup's India retail unit for \$2.5 bn

Axis Bank Ltd. is nearing a deal to buy Citigroup Inc.'s India retail banking business in a transaction that could be valued at \$2.5 billion. The deal would include a cash component of less than \$2 billion, accounting for the consumer business's liabilities. The Indian lender emerged as the buyer after beating out rivals, with factors such as job security for current Citigroup employees and competition concerns being taken into account.

#### **Axis Bank**

- > CEO: Amitabh Chaudhry
- ➤ Headquarters: Mumbai
- Founded: 3 December 1993
- Subsidiaries: Freecharge, A. Treds Limited, Axis Finance Limited, etc.

## Citigroup

Citigroup Inc. or Citi is an American multinational investment bank and financial services corporation headquartered in New York City.

- CEO: Jane Fraser
- Founded: 8 October 1998
- Citibank, Subsidiaries: Banamex, Citibank Malaysia, Citibank India, etc.

# NITI Aayog and PhonePe to launch Fintech Open Hackathon

NITI Aayog in association with PhonePe will launch the Fintech Open Hackathon. The Hackathon will provide an opportunity for innovators, digital creators and developers from all over India to think, ideate and code. It aims to showcase path-breaking solutions for the Fintech Ecosystem. The winning teams will get exciting prizes:

The top 5 hacks will be awarded a prize money in the following denominations:

1st place: INR 1,50,000 for the team - 1 prize 2nd place: INR 1,00,000 for the team - 2 prizes 3rd place: INR 75,000 for the team - 2 prizes

## **PhonePe**

- CEO: Sameer Nigam
- ► Headquarters: Bengaluru
- Subsidiaries: Solvy Tech Solutions Pvt Ltd
- Founders: Sameer Nigam, Rahul Chari, Burzin Engineer
- Parent organization: Flipkart

# Ministry of Finance grants Rs 1154.90 crore to Urban Local Bodies of Andhra Pradesh, Bihar, Gujarat, and Sikkim

Department of Expenditure, Ministry of Finance today released an amount of 1154.90 crore rupees to four states for providing grants to Urban Local Bodies. The States to which grants were released on Monday are Andhra Pradesh, Bihar, Gujarat, and Sikkim. The grants released are meant for Non-Million Plus cities including Cantonment Boards. The 15th Finance Commission in its report for the period from 2021-22 to 2025-26 has divided the Urban Local Bodies into two categories. These are Million-Plus urban agglomerations and cities excluding Delhi and Srinagar, and all other cities and towns with less than one million populations. The 15th Finance Commission has recommended separate grants for them. Out of the total grants recommended by the Commission for Non-Million Plus cities, 40 percent is a basic grant and the remaining 60 percent is a tied grant. Basic grants are utilized for location-specific felt needs, except for payment of salary and incurring other establishment expenditures. On the other hand, tied grants for the Non-Million Plus cities are released for supporting and strengthening the delivery of basic services. Out of the total tied grant, 50 percent is earmarked for 'Sanitation Solid Waste Management and attainment of star ratings as developed by the Ministry of Housing and Urban Affairs. The remaining 50 percent is tied to 'Drinking water, rainwater harvesting and water recycling'.

# Bank of Baroda to acquire Union Bank's 21% stake in IndiaFirst Life

Bank of Baroda has announced acquisition of a 21% stake of Union Bank of India in IndiaFirst Life Insurance. However, the valuation of the deal was not disclosed by the bank. On completion of the acquisition, BoB will hold a 65% stake in IndiaFirst Life, Union Bank will hold 9% and Carmel Point Investments India will have the remaining 26%. IndiaFirst Life Insurance will continue to have longterm agency distribution agreement with both Bank of Baroda and Union Bank after stake sale. At present, Bank of Baroda's stake stands at 44%, Union Bank holds 30% and Carmel Point Investments India has 26% stake in the company. As on March end, IndiaFirst Life Insurance's total assets under









management stood at Rs 17,109 crore, while the total premium collections stood at Rs 4,056 crore.

# RBI keeps repo rate unchanged at 4% for 10th time in a row

The RBI's Monetary Policy Committee (MPC) kept the repo rate unchanged at a record low of 4% for the 10th consecutive time. The reverse repo rate also remains unchanged at 3.35%. The reverse repo rate is the rate at which RBI borrows money from banks. The MPC projected GDP growth for 2022-23 at 7.8% and retail inflation at 4.5%. RBI hiked cap on e-RUPI voucher to ₹1 lakh and extended on-tap liquidity scheme for healthcare, contact intensive sector till June 30. The RBI has extended the on-tap liquidity facilities of ₹50,000 crore and ₹15,000 crore for emergency health services and contact intensive service sectors, respectively, from March 31 till June 30. This has been done on account of "continued uncertainties brought on by the third wave. Banks get certain incentives for lending under the two schemes.

# RBI cancels licence of Nashik based Independence Co-operative Bank Limited

Reserve Bank of India has cancelled the licence of Nashik based Independence Co-operative Bank Limited. The bank will not be allowed to carry out any operations henceforth and a liquidator will be appointed soon. RBI has clarified that the bank does not have adequate capital and earning prospects. It said that the bank's present financial position is such that it will not be able to pay its depositors in full and public interest would be adversely affected if the bank is allowed to carry on with its business. RBI said that post liquidation, every depositor will be entitled to receive deposit insurance claim amount upto a monetary ceiling of five lakh rupees only. The apex bank has said that more than 99 percent of the depositors are entitled to receive the full amount of their deposits from Deposit Insurance and Credit Guarantee Corporation.

#### RBI:

➤ Headquarters: Mumbai

Founded: 1 April 1935, Kolkata Governor: Shaktikanta Das

# PNB, Patanjali launch contactless credit cards in partnership with NPCI

Punjab National Bank (PNB) and Patanjali Ayurved Limited (PAL) have launched co-branded contactless credit cards in partnership with the National Payments Corporation of India (NPCI). The co-branded credit cards are offered on NPCI's RuPay Platform and are available in two variants - PNB RuPay Platinum and PNB RuPay Select. Both the co-branded cards offer a hassle-free credit service to purchase day-to-day Patanjali products, along with cash backs, loyalty points. PNB RuPay Platinum and PNB RuPay Select cardholders will receive a welcome bonus of 300 reward points on activation.

# **Punjab National Bank:**

Founded: 1894

➤ Headquarters: New Delhi MD & CEO: Atul Kumar Goel

Tagline: The Name You Can Bank Upon

# At 6.6%, India's GDP contracted less than projected in FY21

The National Statistical Office (NSO), Ministry of Statistics and Programme Implementation (MoSPI) released the First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation for the financial year 2020-21. The National Statistical Office recently released the first revised GDP estimates for the fiscal year 2021. According to the estimates, the GDP contracted by 6.6%. Earlier, the GDP had contracted by 7.3%. The contraction is mainly due to the COVID pandemic and the lockdown imposed. The NSO has also revised downward the real Gross Domestic Product (GDP) growth number for 2019-20 to 3.7 per cent as against the earlier estimate of 4 per cent. Under the 1st revision released in January 2021, real GDP or GDP at constant (2011-12) prices for 2019-20 stood at Rs 145.69 lakh crore with 4 per cent growth.

# RBI imposes restrictions on Indian Mercantile Cooperative Bank Ltd

Reserve Bank of India has imposed several restrictions on Indian Mercantile Cooperative Bank Ltd, Lucknow, including a cap of Rs 1 lakh on withdrawals. The restrictions came into force from the closure of business hours on January 28, 2022. RBI









said the Lucknow-based co-operative bank will not, without its prior approval, grant or renew any loans and advances, or make any investment. The restrictions would remain in force for six months and are subject to review. The RBI has imposed the above restriction in the exercise of powers vested in it under sub-section (1) of Section 35 A read with Section 56 of the Banking Regulation Act, 1949 (AACS). In particular, a sum not exceeding Rs 1 lakh of the total balance across all savings bank or current accounts or any other account of a depositor, may be allowed to be withdrawn, subject to certain conditions.

# SPMCIL sets up new bank note printing lines at **Nashik and Dewas**

Security Printing and Minting Corporation of India Limited (SPMCIL) has set up 'new banknote printing lines' at its Currency Note Press, Nashik and Bank Note Press, Dewas. In India, four printing presses for printing and supply of Banknotes. These are at Dewas in Madhya Pradesh, Nasik in Maharashtra (owned by SPMCIL), Mysore in Karnataka, and Salboni in West Bengal (owned by Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL)).

#### The SPMCIL:

SPMCIL, a Government of India owned Miniratna company, is engaged in the manufacture/production of Currency and Bank Notes, Security Paper, Non-Judicial Stamp Papers, Postal Stamps, Passport, Visa, Cheques, Bond, Warrant, Special Certificates with security features, Security Inks, Circulation & Commemorative Coins, Medallions, Refining of Gold & Silver, and Assay of Precious Metals among others.

- Chairman and Managing Director: Tripti Patra Ghosh
- Founded: 10 February 2006.

### Paytm Money launches 'Pops' messenger

Paytm Money has introduced "India's first" intelligent messenger called 'Pops'. The company has launched 'Pops', with which users can receive specific information related to their stocks, analysis their portfolio, market news, and important market movements in an easy to consume format, all in one place. The platform will also serve as a marketplace to offer sophisticated stock recommendations, news insights, and other services. Pavtm Money is partnering with InvestorAi offer to stock

recommendations based on signals generated using artificial intelligence. Now, with Pops on the Paytm Money app, these investors can monitor their portfolios regularly and learn from the market movements with alerts curated for them.

# **Paytm Money:**

- CEO: Varun Sridhar
- Headquarters location: Bengaluru
- Founded: 20 September 2017

# Tatas pick SBI, two other banks to finance Air India's old debt

Tata Group has chosen State Bank of India, Bank of Baroda and HDFC Bank as preferred bankers for Air India. Recently Tata Group has taken over Air India from the government. Air India is the largest international carrier out of India with an 18.6% market share. Tata Sons have availed of a Rs 10.000-crore loan from SBI and a Rs 5,000-crore loan from BoB. The loan from HDFC Bank is not known yet. The loans are unrated, unsecured, and pegged at 4.25% [interest rate] annually. Tata Sons-promoted Talace has acquired Air India, offering Rs 18,000 crore that include Rs 15,300 crore for the carrier's existing debt and Rs 2,700 crore cash to be paid to the government. The new debt availed by the Tata Group will be used to refinance Air India's debt availed at over 10%.

# Google to invest up to \$1 billion in India's Bharti Airtel

Bharti Airtel and Google have announced a long-term partnership agreement, to accelerate the growth of India's digital ecosystem. Under the deal, Google will invest USD 1 billion in Airtel. From the total investment, Google will invest USD 700 million to acquire a 1.28 per cent stake in Bharti Airtel Ltd. The remaining USD 300 million will go toward multi-year commercial agreements with Airtel, including devices built together by the two tech giants. The USD 1 billion funding is part of Google's USD 10 billion 'Google for India Digitization Fund', launched in 2020. This is Google second investment in an Indian telecom service provider (after Reliance Jio). Discussion between the two companies had been going on since the first half of 2021 and culminated in an announcement.







# **MoU's Signed**

## Tata Power & RWE Renewables Signs MoU for Offshore Wind Projects in India

Tata Power has collaborated with Germany-based RWE Renewable GmbH to explore potential for a joint development of offshore wind projects in India. A corresponding Memorandum of Understanding (MoU) has been signed between Tata Power Renewable Energy Limited, a 100 per cent subsidiary of Tata Power, which is one of India's largest integrated power companies, and RWE Renewables GmbH, one of the world's leaders in offshore wind. India is an unexplored and highly attractive market to develop opportunities for offshore wind as it has a large coastline of 7,600 kilometres. The MoU between Tata Power Renewable Energy and RWE becomes significant in the light of the Government of India's announcement of achieving 30 gigawatts (GW) of offshore wind installations by 2030 to meet the country's growing power demands, it added. RWE and Power Renewable Tata Energy possess strengths and will enable the complementary establishment of a competitive offshore wind market in India.

#### **TATA Power:**

- > CEO: Prayeer Sinha
- Founder: Dorabji Tata
- > Founded: 1911
- Headquarters: Mumbai
- Subsidiaries: Tata Power Delhi Distribution Limited
- Parent organization: Tata Group

#### Government of India, World Bank sign loan agreement of 115 million US dollar implementation REWARD Project

The Government of India (GoI), and the World Bank signed loan agreements of USD 115 million to implement the "Rejuvenating Watersheds Agricultural Resilience through Innovative Development" (REWARD) Project in the states of Karnataka and Odisha with the support of the respective governments.

#### Financial structure-

The International Bank for Reconstruction and Development (IBRD) financing will support

Karnataka with \$60 million (INR 453.5 crore), Odisha with \$49 million (INR 370 crore), and the remaining \$6 million (INR 45.5 crore) will be for the central government's Department of Land Resources. The \$115 million (INR 869 crore) loan has a maturity of 15 years, including a grace period of 4.5 years.

#### **REWARD Project:**

This project is an initiative of the Department of Land Resources (DoLR), Ministry of Rural Development (MoRD) and World Bank. It is proposed as a 6 years' project, from 2021 to 2026 and one of the largest watershed management programs in the world.

## TransUnion CIBIL Partners with FICCI to Launch Nationwide MSME Consumer Education Program

TransUnion CIBIL has partnered with FICCI to launch a unique nationwide MSME consumer education programme for spreading awareness credit management, CIBIL rank and commercial credit information. The objective is to empower MSMEs (Micro, Small and Medium Enterprises) with knowledge on how to build a good credit history and CIBIL rank to avail easier and faster access to finance. It aims to reach thousands of enterprises across key MSME clusters in India. The program will kick off with MSME clusters in Maharashtra, Assam, and Tripura and aims to reach thousands of MSMEs across key clusters in India. TransUnion CIBIL offers MSME lenders solutions like CIBIL Rank and commercial credit reports for astute lending. IBIL Rank assigns a rank to the MSME based on its credit history data on a scale of 1-10. It also publishes insight reports like the MSME Pulse in association with the Small Industries Development Bank of India and the Emergency Credit Line Guarantee Scheme analysis report to support policymakers and the industry with market insights on the MSME sector.

#### **TransUnion CIBIL:**

- ➤ Headquarter: Mumbai
- Founded: 2000
- MD & CEO: Rajesh Kumar









#### India, **UAE** sign Comprehensive Economic Partnership Agreement, two countries to boost bilateral trade to 100 billion dollars in next 5 yrs

Prime Minister Narendra Modi and Crown Prince of Abu Dhabi Sheikh Mohammed bin Zayed Al Nahyan held a Virtual Summit. Prime Minister Modi and the Crown Prince issued a Joint vision statement -Advancing the India and UAE Comprehensive Strategic Partnership: New Frontiers, New Milestone. The Statement establishes a roadmap for a futureoriented partnership between India and UAE and identifies focus areas and outcomes. The shared objective is to promote new trade, investment and innovation dynamic in diverse sectors, including economy, energy, climate action, emerging technologies, skills and education, food security, healthcare and defence and security. A major highlight of the Virtual Summit was the signing and exchange of the India-UAE Comprehensive Economic Partnership Agreement, CEPA. It was signed by Commerce and Industry Minister Piyush Goyal and Minister of Economy of UAE, Abdulla bin Touq Al Marri in the virtual presence of the two Leaders.

#### UAE:

Capital: Abu Dhabi

Currency: United Arab Emirates dirham

President: Khalifa bin Zaved Al Nahvan

## Brio Hydroponics signs with Israeli Firm to **Launch Rain Safety Approach**

BRIO Hydroponics, an Ahmedabad based agritech startup, made a joint venture with an Israeli firm Pic-Plast Limited for a rain protection technique that will help grow plants hydroponically. The JV will set up India's first Rain Technology Nethouse with Solarig Net House kit.

## **Objective:**

The startup is to boost the production of blueberries hydroponically to sell at an affordable price.

## Note:

Hydroponics is a type of horticulture and a subset of hydroculture which involves growing plants, usually crops, without soil, by using mineral nutrient solutions in an aqueous solvent.

#### **Process of Pic-Plast:**

The process involves implementing a rain defence layer on the hydroponics plant in the course of rains and taking it away when there is no rain.

#### **Techniques of Hydroponics:**

Pure hydroponics with no media to mature but a nutrient drinking water-soluble film is made use of. It also improves the best leafy veggies via Nutrient Film Approach (NFT). Aggregate hydroponics with all vegetables that flower and yield fruits developed in an inert media, typically substantial-excellent cocopeat.

#### **Brio Hydroponics:**

> CEO: Amit Kumar Verma

Headquarters: Ahmedabad, Gujarat

## BoB signs MoU with Assam Rifles to provide salary package to central forces

Bank of Baroda signed an MoU to provide 'Baroda Central Force Salary Package (BCFSP)' to all serving and retired personnel of Assam Rifles, the oldest paramilitary force of Assam Rifles.

## **Benefits offered through the agreement:**

BoB provides services like free unlimited transactions at all bank ATMs, free remittance services like National Electronic Funds Transfer (NEFT) / Real Time Gross Settlement (RTGS) online or through branch, free debit cards, free unlimited demand draft facilities, 50 percent off Will do Discount on locker rent, 100% discount on demat annual maintenance charges and 75% off on gift and travel card issuance charges. It also offers exclusive benefits like Personal Accident Insurance (PAI) and a co-branded credit card. In case of death, serving and retired Assam Rifles personnel between the age group of 18-70 years will get Rs 43.75 lakh cover for on-duty personnel and Rs 35 lakh for off-duty personnel. A cover of Rs 35 lakh for total disability and Rs 17.5 lakh for partial disability will be available.

#### IBM announces acquisition of US-based Neudesic

IBM has announced the acquisition of Neudesic, a US-based cloud services consultancy specializing primarily in the Microsoft Azure platform, along with bringing skills in multicloud. This acquisition will significantly expand IBM's portfolio of hybrid multicloud services and further advance the company's hybrid cloud and AI strategy. The acquisition is of significance to its presence in India as well as more than half of Neudesic's headcount is based in India across Hyderabad, Bengaluru and Kochi. Including Neudesic, IBM has acquired more than 20 companies -- 12 in IBM Consulting alone ---











since Arvind Krishna became CEO in April 2020. IBM's prior acquisitions of cloud transformation capabilities, including Sentaca, SXiQ, BoxBoat, Nordcloud and Taos. Acquisitions is one of IBM's strategies to invest in its hybrid cloud and AI strategy, expanding its cloud services technology, skills and capabilities to meet the growing demand of clients' hybrid cloud needs.

#### **IBM**

- CEO: Arvind Krishna
- ➤ Headquarters: New York, United States
- Founder: Charles Ranlett Flint
- Founded: 16 June 1911
- Subsidiaries: Red Hat Software, Aspera, SoftLayer, etc.

## Paisabazaar ties up with RBL bank to offer credit card

Paisabazaar.com, a digital platform for consumer credit, has partnered with RBL Bank Limited to offer 'Paisa on Demand' (PoD), a credit card that will be exclusively available on the Paisabazaar platform. To build products that offer integrated services for the large under-served segments across India. This is the third product under Paisabazaar's neo-lending strategy.

## **Featuring:**

- The credit card from RBL Bank will be lifetime free with a digital onboarding process.
- It provides options of availing of personal loans from RBL Bank, using the same credit limit at normal personal loan rates to customers.
- Along with features of a credit card, the product will provide customers the option of availing personal loans from RBL Bank, using the same credit limit at normal personal loan rates.

#### Vedanta to make semiconductors in India with iPhone maker Foxconn

Indian conglomerate Vedanta has signed a pact with electronics manufacturing services giant Foxconn to form a joint venture (JV) for manufacturing semiconductors in India. Foxconn will invest \$118.7 million to set up a joint venture company. Vedanta is the first company to make the announcement to invest in semiconductor manufacturing after the government announced a Rs 76,000-crore programme to boost electronic chip and display ecosystem in the country.

This is also the second attempt of Vedanta to enter the semiconductor space after its earlier plans to set up a display unit with Rs 60,000 crore investment could not take off. According to the MoU, Vedanta will hold the majority equity in the JV, while Foxconn will be the minority shareholder. Vedanta Chairman Anil Agarwal will be the chairman of the joint venture. The targeted project plans to invest in manufacturing semiconductors. The collaboration between Vedanta and Foxconn follows the government's recent policy announcement for electronics manufacturing and PLI scheme for incentivising organisations to contribute towards the development of this sector.

#### Vedanta:

- Founder: Dwarka Prasad Agarwal
- Founded: 25 June 1965 CEO: Sunil Duggal
- Headquarters: Mumbai
- Subsidiaries: Hindustan Zinc, Bharat Aluminium
  - Company, MORE
- Parent organization: Vedanta Resources

#### India and Australia sign Memorandum of **Understanding (MoU) on Tourism cooperation**

India and Australia have signed Memorandum of Understanding (MoU) on Tourism cooperation in the field of Tourism on 11th February 2022 in New Delhi. This will enhance cooperation and encourage Expansion of bilateral relations in tourism. The MoU will facilitate Exchange of information and data related to tourism. Australia is one of the most important tourism generating markets for India (ranked 4th in terms of Foreign Tourist Arrivals to the country in 2019 and contributing 3.4% in total tourism share of foreign tourists in the country). India and Australia had previously signed a Memorandum of Understanding on tourism cooperation in the field of tourism on 18.11.2014. Presently, Ministry of Tourism has MoUs with 45 countries. The present MoU between India and Australia in the field of Tourism is expected to give a fillip to tourism promotion post pandemic between two countries.

#### Australia

- > Prime minister: Scott Morrison
- Capital: Canberra
- > Currency: Australian dollar











## Finland signs deal to buy 64 US F-35 fighter jets for \$9.4 billion

Finland has sealed a deal to buy dozens of F-35 stealth warplanes from the United States, in a sign of its military's close ties with NATO at a time of high tension between the West and Russia in Europe. The northern European nation - which borders Russia and was historically neutral during the Cold War - signed the \$9.4 billion agreement to buy 64 radar-evading Lockheed Martin jets. The contract with the U.S. government and planemaker Lockheed Martin includes maintenance equipment, spare parts and training services. The aim is to ensure that Finland's F-35 system has the best possible performance going into the 2030s. Finland also want to buy surface-tosurface missiles from Lockheed for 75 million euros to improve the performance and extend the range of it's heavy rocket launcher system. The munition deliveries are estimated to begin in 2025. surface-to-surface missiles have a range of over 135 kilometres and could be used offensively or as a deterrent to land invasion.

#### **Finland**

Capital: Helsinki

Prime minister: Sanna Marin

Currency: Euro

President: Sauli Niinistö

## UNEP signs MoU with Maharashtra govt for implementing climate change actions

The United Nation Environment Programme (UNEP) has signed an MoU with the Maharashtra government to support its 'Majhi Vasundhara' campaign. It is an initiative towards sustainable use of energy and environmental development. The literal meaning of 'Majhi Vasundhara' is 'My Earth'. It is an initiative of the Environment and Climate Change Department, Government of Maharashtra.

#### Majhi Vasundhara:

Majhi Vasundhara' is an initiative of the Government of Maharashtra's Environment and Climate Change Department to empower citizens with knowledge on the impacts of climate change and environmental issues and to encourage them to make a conscious effort towards improvement of the environment. To empower citizens with knowledge on the impacts of climate change and environmental issues and to encourage them to make a conscious effort towards the improvement of the environment.

#### **United Nation Environment Programme:**

Headquarters location: Nairobi, Kenya

Founded: 5 June 1972

Head: Inger Andersen

## Amazon India signs MoU with Karnataka Govt. to turn rural Women into Entrepreneurs

Amazon India signed a Memorandum Understanding (MoU) with Karnataka State Rural Livelihood Promotion Society (KSRLPS) to support the growth of women entrepreneurs. The MoU was signed in presence of Karnataka Chief Minister (CM), Basavarai Bommai and Minister of Development, Entrepreneurship and Livelihood, CN Ashwath Narayan.

#### What is in the MoU?

Amazon India will launch 'Sanjeevini-KSRLPS' in its platform and extend benefits of the Saheli' Programme to train and empower thousands of rural women entrepreneurs and also provide online access to a wider market for their products. It will boost the demand of indigenous unique products from categories like grocery, home and fashion accessories made by over 30,000 women entrepreneurs and selfhelp groups (SHGs) associated with Sanjeevini-KSRLPS online. It will make these products available for online sales, to the customers of Amazon.

#### Saheli Programme:

The Saheli Programme offers training and skill development workshops to help women entrepreneurs. The session comprises such as e listing of products, imaging and cataloging, packaging and shipping, inventory and account management etc. It will also offer other benefits to sellers in the Saheli programme including assisted onboarding and mentorship at no additional cost.

#### Amazon:

CEO: Andy Jassy

Founder: Jeff Bezos

Founded: 5 July 1994

Headquarters: Seattle, Washington, United States

Subsidiaries: Audible, Zappos, Whole Foods Market, Ring

## ICICI Lombard Partnered Airtel Payments Bank to Offer Cyber Insurance

ICICI Lombard General Insurance Company has partnered with Airtel Payments Bank to offer









insurance solutions against cyber crimes and financial frauds to its customers.

## The Policy:

The cyber insurance solution from ICICI Lombard provides financial protection to customers against potential financial fraud relating to banking, credit or debit card identity theft phishing or email spoofing. The policy provides a 90-day discovery period followed by 7-day reporting period.

#### **ICICI Lombard General Insurance Company:**

ICICI Lombard offers technology-driven solutions such as the 'IL TakeCare App' where customers can purchase policies, manage claims, and renew policies.

## Bangladesh signs agreement to purchase 420 broad-gauge railway wagons from India

The Bangladesh railways will procure 420 broadgauge wagons from India. The agreement was signed in Dhaka between the project director of Bangladesh railways Mizanur Rahman and the Hindustan Engineering and Industries Limited. The agreement worth Tk. 231 crore will be implemented within 27 months of the signing of the contract. This project is being implemented with the joint funding of the Government of Bangladesh and Asian Development Bank (ADB) under the Rolling Stock Operation Improvement Project. These are high speed bogies with automatic air brake systems so that the general and specialised products like various food grains, fertilisers, stones, wood etc. can reach the destination safely at low cost and in less time. The wagons are equipped with a stainless steel body.

#### Bangladesh:

Capital: Dhaka

Currency: Bangladeshi taka President: Abdul Hamid Prime minister: Sheikh Hasina

## SBI Partners with Tata Power for Financing Solar **Projects**

State Bank of India (SBI) has launched a dedicated centralized processing cell named 'Surya Shakti Cell' with the objective of strengthening the existing financing arrangement for solar power projects. SBI has collaborated with Tata Power Solar Systems Ltd. (a Tata Power Company) for financing solar power projects. The cell has been set up in the Ballard Estate in Mumbai. The Surya Shakti Cell will process all the loan applications for Solar Projects from across India by Tata Power Solar Systems Ltd., with a maximum capacity of up to 1 MW. Loan applicants will include both business entities as well as households. The bank aims to provide an end-to-end platform for digital and hassle-free journeys to loan applicants for financing solar projects. With this digital initiative, SBI will offer a complete solution at competitive rates for solar projects.

## **Tata Power Solar Systems Ltd.:**

> Headquarters: Mumbai

Founded: 1989

## India, Philippines signs 375-million-dollar deal for the sale of BrahMos supersonic anti-ship cruise missiles

India and Philippines signed the 375-million-dollar deal for the sale of BrahMos supersonic anti-ship cruise missiles to the Philippines Navy. Defense Secretary of Philippines Delfin Lorenzana and Indian Envoy to Philippines Shambhu Kumaran signed the contract in Manila. The development is a major shot in the arm for India's efforts to become an exporter of defence hardware. BrahMos Aerospace, an India-Russian joint venture produces the supersonic cruise missile BrahMos that can be launched from submarines, ships, aircraft, or from land platforms.

#### **Philippines:**

Capital: Manila

Currency: Philippine peso President: Rodrigo Duterte

### India, France sign MoU with scope for cooperation in health research

India and France have signed an MoU with a scope for cooperation in health research. Science and Technology Ministry said, the MoU was signed between Council of Scientific and Industrial Research. CSIR and Institut Pasteur, France. CSIR and Institut Pasteur will jointly research and focus on emerging and re-emerging infectious diseases and inherited disorders and enable delivery of effective and affordable healthcare solutions not only for the people of India and France but for the global good. The MoU provides for developing potential scientific and technological cooperation and networking in advanced and emerging areas of Human Health.









# **Awards & Recognition**

## Dadasaheb Phalke International Film Festival Awards 2022: Complete list of Winners

Dadasaheb Phalke International Film Festival Awards 2022 were conferred to the recipients in a ceremony held on February 20, 2022. Ranveer Singh received the award for Best Actor for '83', Kriti Sanon won the Best Actress award for her role in 'Mimi'. Ken Gosho received the DPIFF 2022 Best Director award for 'State of Siege: Temple Attack' and Best Film award went to 'Shershaah'. DPIFF 2022 Film of the Year award went to 'Pushpa: The Rise' and Best International Feature Film award went to Another Round, a comedy-drama film directed by Thomas Vinterberg and Asha Parekh was honoured with Outstanding Contribution to Films award.

## **Complete List of Winners:**

- Outstanding Contribution to Films: Asha Parekh
- Film of the Year: Pushpa: The Rise
- ➤ Best Film: Shershaah
- Best Director: Ken Ghosh for film State of Siege: Temple Attack
- Best International Feature Film: Another Round
- Best Actor: Ranveer Singh for 83
- Best Actress: Kriti Sanon for Mimi
- > Critics Best Actor: Sidharth Malhotra
- Critics Best Actress: Kiara Advani
- > Best Actor in Supporting Role Award: Satish Kaushik for film Kaagaz
- Best Actress in Supporting Role: Lara Dutta for film Bell Bottom
- Best Actor in Negative Role: Aayush Sharma for film Antim: The Final Truth
- People's Choice Best Actor: Abhimanyu Dasani
- People's Choice Best Actress: Radhika Madan
- Best Debut: Ahan Shetty for film Tadap
- Best Playback Singer Male: Vishal Mishra
- Best Playback Singer Female: Kanika Kapoor
- Critics Best Film: Sardar Udham Singh
- Best Cinematographer: Jayakrishna Gummadi for film Haseena Dilruba
- Best Short Film: Pauli
- Best Actor in Web Series: Manoj Bajpayee for The Family Man 2
- > Best Actress in Web Series: Raveena Tandon for Aranyak
- Best Web Series: Candy

- Best Actor in Television Series: Shaheer Sheikh for Kuch Rang Pyar Ke Aise Bhi
- > Best Actress in Television Series: Shraddha Arya for Kundali Bhagya
- Television Series of the Year: Anupama
- Most Promising Actor in Television Series: Dheeraj Dhoopar for Kundali Bhagya
- Most Promising Actress in Television Series: Rupali Ganguly for Anupama

#### **DPIFF Awards 2022:**

The Dadasaheb Phalke International Film Festival is a unique platform that honours the most creative artists. filmmakers and creators. The festival hosts the most pretigious awards ceremony that honours and appreciate leading artists and storytellers from the entertainment and film industry. It is India's only independent awards function that celebrates the legacy of Dadasaheb Phalke – Father of Indian Cinema.

## Coal India Ltd wins 'Most Dependable Public Sector in India' award from Assocham

Coal India Limited, a Maharatna company of the Government of India, has been awarded the 'India's Most Trusted Public Sector Company' award. Coal India received this honor at the "Energy Meet and Excellence Award" function organized by Industry Chamber "ASSOCHAM" in Kolkata. The company has got this honor at a time when Coal India has not allowed the situation of power crisis in the country by significantly increasing coal production and supply in the last few months to meet the increased demand for coal for the power sector. It is worth noting that the name of Coal India Chairman Mr. Pramod Agarwal was included in the list of "Top 40 CEOs of India" released in January 2022 by the well-known organization Start-up Lens. Last month, Vinay Ranjan, Director (Personnel & Industrial Relations), Coal India was named in Forbes India's list of "India's 100 Great People Managers, 2021".

Bill Gates conferred Hilal-e-Pakistan honour for efforts to eradicate polio; country's second highest civilian honour









Gate was conferred the Hilal-e-Pakistan, the secondhighest civilian honour in the country, at an investiture ceremony for his efforts to help eradicate polio. The Bill and Melinda Gates Foundation, which the billionaire co-chairs, is part of the major intergovernmental project called the Global Polio Eradication Initiative (GPEI). Through Gavi, the vaccine alliance, the Bill and Melinda Gates Foundation has been a major donor towards global polio eradication.

#### **GAVI:**

GAVI is a public-private global health collaboration that aims to improve vaccination access in lowincome countries. By monetary measure, Gavi distributed more than half of total donor aid for health and the majority of donor help for immunization. GAVI is headquartered in Geneva, Switzerland.

## ESPNcricinfo Awards 2021; Test batting winner -Rishabh Pant

In the 15th Edition of ESPNcricinfo Awards, India's wicketkeeper-batsman, Rishabh Pant wins the 'Test Batting' award by scoring 89 not out, helped India to win the Border Gavaskar Trophy 2021 by (2-1) and shattered Australia's unbeaten record at Gabba after 32 years. Rishabh Pant was the top scorer of the series for the Indian team, scoring (274 runs). New Zealand skipper Kane Williamson was adjudged 'Captain of the Year'. The Test bowling award went to Kyle Jamieson (New Zealand) for his 5 wickets leaving just 31 runs, which helped New Zealand in becoming the first World Test champions (2019-2021). England fast bowler Ollie Robinson was named Debutant of the Year. Saqib Mahmood's 4 for 42 in a nine-wicket win over Pakistan got him the top ODI bowling prize. Jos Buttler won the T20I batting award. The ODI batting and T20I bowling awards went to Pakistan. Fakhar Zaman won the top batting prize. Shaheen Afridi won the T20I bowling award for his annihilation of India in the 10-wicket win for Pakistan at the T20 World Cup.

## Cate Blanchett to Be Honoured with The First-Ever International Goya Award by The Spanish Film Academy

The Spanish Film Academy has announced that its first-ever International Goya Award will be received by Hollywood star Cate Blanchett. Currently presided by Mariano Barroso, the Spanish Film Academy created the award to "honor artists that have contributed to cinema as a medium that brings together different cultures and people". Cate Blanchett was recognised for her impactful work both on and off the screen worldwide, as an award-winning actor, producer, artistic director and humanitarian. She will receive the award at a gala ceremony on February 12 in Valencia, Spain. Cate Blanchett has earned two Oscars, three BAFTAs and three Screen Actors Guild Awards. Her recent film credits include Guillermo del Toro's 'Nightmare Alley'. Other credits over the years include 'Carol', 'Blue Jasmine', 'The Aviator' and 'Elizabeth'. Outside of Cate Blanchett's onscreen achievements, the actor is also a Global Goodwill Ambassador for the UN Refugee Agency (UNHCR), a lifetime member of the Australian Conservation Foundation and supporter of the Australian Wildlife Conservancy.

Note: Blanchett has received a Crystal Award at the World Economic Forum in Dayos for her work with UNHCR.

## New Zealand opener Daryl Mitchell wins ICC Spirit of Cricket Award 2021

New Zealand cricketer, Daryl Mitchell has been named the winner of the International Cricket Council (ICC) Spirit of Cricket Award 2021. This award is given to him for his gesture of refusing to take a single in the high-pressure 2021 ICC Men's T20 World Cup Semi-Finals against England as he felt he had "obstructed" the way of bowler Adil Rashid at the Sheikh Zayed Stadium in Abu Dhabi. He has become the 4th New Zealand player to win the award after Daniel Vettori, Brendon McCullum and Kane Williamson. The ICC Spirit of Cricket Award is annually awarded by the ICC to recognise the player most notable for "upholding the 'Spirit of the Game". ICC:

- Chairman: Greg Barclay
- CEO: Geoff Allardice
- Headquarters: Dubai, United Arab Emirates
- Founded: 15 June 1909

## Telugu short film 'Street Student' wins Rs 2 lakh prize at NHRC's Short Film Award Competition

A Telugu short film 'Street Student' by Akula Sandeep depicting the story of a street urchin with a









strong message on right to education has bagged the first prize in a competition organised by the National Human Rights Commission (NHRC). 'Street Student' by Akula Sandeep has been selected for the first prize worth Rs 2 lakh in the seventh Short Film Award Competition. It is in Telugu with subtitles in English. The film shows the story of a street urchin to send across a strong message on right to education and how society needs to support it. The second prize worth Rs 1.5 lakh goes to, 'Karfew' by Romi Meitei. The film, through the story of a child in Manipur, pitches in hope for a better world, wherein people's right to life, liberty, dignity and equality can be protected against odds including stereotyped fear psychosis. It is in the Meiteilon language with subtitles in English.

#### **National Human Rights Commission:**

- Formed: 12 October 1993
- Headquarters: New Delhi

#### **Australian Cricket Awards 2022**

Mitchell Starc won Allan Border Medal, while Ashleigh Gardner won Belinda Clark Award at Australian Cricket Awards 2022. Travis Head was named Men's Test Cricketer of the Year. Mitchell Starc and Alyssa Healy won ODI Player of the Year awards in their respective categories. Mitchell Marsh and Beth Mooney were named Men's and Women's T20 Player of the Year respectively.

#### **List of 2022 Australian Cricket Awards:**

- ➤ Belinda Clark Award: Ashleigh Gardner
- Allan Border Medal: Mitchell Starc
- Men's Test Player of the Year: Travis Head

- Women's ODI Player of the Year: Alyssa Healy
- Men's ODI Player of the Year: Mitchell Starc
- Women's T20 Player of the Year: Beth Mooney
- Men's T20 Player of the Year: Mitchell Marsh
- > Women's Domestic Player of the Year: Elyse Villani
- Men's Domestic Player of the Year: Travis Head
- Betty Wilson Young Cricketer: Darcie Brown Bradman
- Young Cricketer: Tim Ward
- Australian Cricket Hall of Fame inductees: Justin Langer & Raelee Thompson.

## With 115 medals, J&K Police bags highest number of gallantry medals in country

Jammu and Kashmir Police has bagged 115 Police Medals for Gallantry (PMG), out of a total of 189 awarded this year. They more than doubled their last year's tally of 52 PMGs. J&K Police won awards for conducting several counter-insurgency operations in 2019-20. Police personnel from Jammu and Kashmir have been awarded 115 Police Medals for Gallantry. the highest number from any police force this year, followed by CRPF with 30, Chhattisgarh Police with 10, Odisha Police with nine, and Maharashtra Police with seven.

#### Jammu and Kashmir:

- Union territory: 31 October 2019
- Capital: Srinagar (May-October), Jammu (Nov-
- Lieutenant Governor: Manoj Sinha

# "The Best Way To Get Started Is To Quit Talking And Begin Doing."









# **Sports**

#### 16-year-old Indian Chess Grandmaster Praggnanandhaa defeats world No. 1 Magnus Carlsen in online chess tournament

Rameshbabu Praggnanandhaa, a 16-year old Indian Grandmaster defeated the World Champion Magnus Carlsen of Norway in the eighth round of the Airthings Masters online rapid Chess tournament. Praggnanandhaa becomes the third Indian and the youngest player to beat Carlsen.

## Who is Rameshbabu Praggnanandhaa?

Rameshbabu Praggnanandhaa is a 16-years old Indian Grandmaster. He is a Chess prodigy and the fifthyoungest person ever to achieve the title of Grandmaster. In 2013, Praggnanandhaa had won the World Youth Chess Championships under-8 title and he won the Under-10 title in 2015. Later in 2016, he became the youngest international master in history, at the age of 10 years, 10 months and 19 days. In November 2017, Praggnanandhaa achieved his first grandmaster norm at the West Junior Chess Championship where he finished fourth with 8 points.

#### **Airthing Masters 2022**

Airthing Masters has kicked off the Meltwater Champions Chess tour of 2022. The 16 players in total will battle it out in the round-robin stage of the online event before the eight go forward to the knockout stage. Airthing Masters 2022 tournament is taking place from February 19-26, 2022.

## Shakibul Gani of Bihar becomes first to score triple hundred on First-Class debut in the Ranji Trophy match against Mizoram in Kolkata

India's Sakibul Gani became the first batter in world cricket to hit a triple century on his first-class debut when he made 341 in the Ranji Trophy tournament. The 22-vear-old walked out to the crease for Bihar against Mizoram in Kolkata on, the second day of their four-day match in the country's premier red-ball competition. By the time he was out 405 balls later he had plundered 56 fours and two sixes. The right-hand batsman surpassed fellow Indian Ajay Rohera's record of 267 not out for Madhya Pradesh in the 2018-19 Ranji Trophy season. Another Indian Amol Mazumdar stands third with his 260 for Bombay, now Mumbai, in 1994.

#### Ranji Trophy:

The Ranji Trophy is a domestic first-class cricket championship played in India between multiple teams representing regional and state cricket associations. The competition currently consists of 38 teams, with all 28 states in India and four of the eight union territories having at least one representation.

- Current champion: Saurashtra cricket team
- Most runs: Wasim Jaffer (12,038); 1996–2020
- Number of teams: 38
- Format: First-class cricket
- Most wickets: Rajinder Goel (640); 1958–1985

## World no. 8 Casper Ruud wins 7th ATP Tour title at Argentina Open

World number eight Casper Ruud beat Diego Schwartzman in the Argentina Open final to win his seventh ATP Tour title. The World No. 8 followed up his five ATP Tour titles from 2021 with a first of the new season as he overcame Diego Schwartzman to win the Argentina Open for the second time. Ruud is now unbeaten after two appearances in Buenos Aires, and this win extended the Norwegian's winning streak in ATP 250 events on clay to 18.

#### ATP Buenos Aires

The ATP Buenos Aires originally known as the Argentine Championships and established in 1921 is an annual tennis event for male tennis players held in Buenos Aires, Argentina.

- Location: Buenos Aires, Argentina
- Prize money: US\$411,940 (2021)
- Surface: Clay outdoors

#### Gujarat Titans unveiled as name for new Ahmedabad IPL franchise

Gujarat Titans is the official name of the new Ahmedabad franchise owned by CVC Capital as Hardik Pandva is all set to lead the franchise in the Indian Premier League (IPL) 2022. The naming of the Ahmedabad franchise comes days after Lucknow, owned by RPSG Group, announced its official name as Lucknow Super Giants. The Lucknow team will be led by KL Rahul.









Debuting in the 15th season of the IPL, the Gujarat Titans will pay tribute to the state's rich cricketing legacy, which has seen it produce countless Indian international cricket legends over the years. The franchise is inspired by the opportunity to represent and build on this deep cricketing heritage, as well as build on its future success on the pitch. Gujarat Titans drafted in Hardik Pandya as their captain for Rs 15 crore and Afghanistan leg-spinner Rashid Khan for Rs 15 crore. They also got young India opener, Shubman Gill, for Rs 8 crore. The Titans will head into the mega auction with a budget of Rs 52 crore. The Gujarat Titans brought on board former England cricketer Vikram Solanki as the Director of Cricket. Ashish Nehra will be the head coach of the franchise while former World Cup-winning coach and South Africa opener Gary Kirsten will be the Head of Cricket Operations and the batting coach for IPL 2022.

## China wins AFC Women's Asian Cup India 2022 Football Tournament

China PR (People's Republic) defeated South Korea (Korea Republic), 3-2, to win the AFC Women's Asian Cup India 2022 final title at the D Y Patil Stadium in Navi Mumbai. This is the recordextending 9th AFC Women's Asian Cup title won by China. India is hosting the 20th edition of the football AFC Women's Asian Cup India 2022 from January 20, 2022, to February 06, 2022. China now qualifying for the 2023 FIFA Women's World Cup to be held in Australia and New Zealand.

## The following awards were given at the conclusion of the tournament:

- Most Valuable Player: Wang Shanshan (China)
- Top Scorer: Sam Kerr (7 goals) (Australia)
- Best goalkeeper: Zhu Yu (China)
- Fairplay Award: South Korea

## Foundation stone for World's third-largest cricket stadium laid in Jaipur

Rajasthan Chief Minister, Ashok Gehlot and BCCI President Sourav Ganguly laid the foundation stone of the world's third-largest cricket stadium in Jaipur. The International Cricket Stadium in Jaipur will be the second-largest cricket stadium in India and the thirdlargest in the world. The new international stadium will be built by the Rajasthan Cricket Academy

(RCA) on the Jaipur-Delhi bypass, over 100 acres of land in Jaipur. The stadium will have a seating capacity of 75,000 spectators.

#### **Details:**

Currently, Narendra Modi Stadium (former Motera Stadium) in Ahmedabad is the world's largest stadium with a capacity of 132,000 spectators. The secondlargest stadium is Australia's Melbourne Cricket Ground (MCG) which has a capacity of 1,00,024 spectators.

## IOC approves proposal to include new sports at 2028 Olympics

International Olympic Committee (IOC) has approved a proposal to include Surfing, Skateboarding and Sport Climbing for the 2028 Summer Olympics Games that will be organized in Los Angeles, United States. The 2028 Summer Olympics are officially known as the Games of the XXXIV Olympiad, or Los Angeles 2028 is a forthcoming event scheduled to take place from July 21 - August 6, 2028, in Los Angeles, California, US. The 2024 Summer Olympics Games will be organized in Paris, France. With this Paris becomes only the second city to host 3 Summer Olympic games. Surfing, Skateboarding and Sport Climbing had made their Olympic debut in Tokyo Olympics 2021 and will also be included in the "additional" list for Paris in 2024. Boxing, weightlifting and modern pentathlon also have the chance to be included in upcoming Olympics games.

### **International Olympic Committee:**

- Headquarters: Lausanne, Switzerland
- President: Thomas Bach
- Founded: 23 June 1894, Paris, France

## Tata Steel Chess 2022: Magnus Carlsen beats Fabiano Caruana to clinch title with a round to spare

World Champion Grand Master Magnus Carlsen has secured his victory in Wijk Aan Zee (Netherlands) with a round to spare. The world champion defeated GM Fabiano Caruana and now leads the 2022 Tata Steel Chess Tournament by a full point. It was his 8th win, a unique achievement. Erigaisi Arjun (India) has won the Tata Steel Challengers. By doing so he has earned a spot in the Tata Steel Masters next year. The 85th edition of the Tata Steel Chess Tournament will take place from 13 - 29 January 2023.









## Odisha Open 2022: Unnati Hooda wins first international crown, Kiran George claims men's singles title

Indian teenager Unnati Hooda beat compatriot Smit Toshniwal to claim the women's singles title at the 2022 Odisha Open badminton tournament. The 14year old Unnati is the youngest Indian to win the tournament. In men's singles, India's 21-year-old Kiran George beat Priyanshu Rajawat to emerge as the winner. The 2022 Odisha Open is a BWF Super 100 tournament, organized at the Jawaharlal Nehru Indoor Stadium, Cuttack, Odisha.

#### 2022 Odisha Open:

- > Total prize money: US\$75,000
- Location: Cuttack, Odisha, India

#### **Champions:**

- Men's singles: Kiran George (India)
- Women's singles: Unnati Hooda (India)
- Men's doubles: Nur Mohd Azriyn Ayub (Malaysia), Lim Khim Wah (Malaysia)
- Women's doubles: Gayathri Gopichand (India), Treesa Jolly (India)

## Nadal wins record-breaking 21st Grand Slam title, clinches Aus Open after 13 yrs

Ex-world number one Rafael Nadal defeat world number two Daniil Medvedev in the final to win his second Australian Open title, 13 years after winning his first. The 35-year-old Spaniard overtook Roger Federer and Novak Djokovic to clinch the most number of men's singles Grand Slam titles (21).

#### 2022 Australian Open:

- Edition: 110th, Open Era (54th)
- Prize money: A\$75,000,000
- Location: Melbourne, Victoria, Australia

#### **Champions:**

- Men's singles: Rafael Nadal (Spain)
- Women's singles: Ashleigh Barty (Australia)
- Men's doubles: Nick Kyrgios (Australia) / Thanasi Kokkinakis (Australia)
- > Women's doubles: Barbora Krejčíková (Czech Republic) / Kateřina Siniaková (Czech Republic)
- Mixed doubles: Kristina Mladenovic (France) / Ivan Dodig (Croatia)

#### Women's Asia Cup Hockey: India beat China 2-0 to win Bronze medal

Japan continued their impressive run at the 2022 Hockey Asia Cup as they thrashed the mighty South Koreans at Muscat. India won bronze medal beating China for third and fourth place play off. Sharmila Devi in the 13th minute and Gurjit Kaur in the 19th minute scored goals for India. It's India's first tournament since their joint-best ever finish (fourth) at Olympics, in Tokyo.

#### 2022 Women's Asia Cup

- ► Host country: Oman
- City: Muscat
- Teams: 8 (from 1 confederation)
- Venue: Sultan Qaboos Sports Complex
- Champions: Japan (3rd title)
- Runner-up: South Korea
- Third place: India
- Top scorer: Cheon Eun-bi, South Korea (7 goals)

# "You Learn More From Failure Than From Success. Don't Let It Stop You. Failure Builds Character."









# **Science & Technology**

## NASA signs \$194 mn deal to build rocket to bring Mars samples back to Earth

NASA has signed a contract of \$194 million with Lockheed Martin's space division to build a "small and lightweight rocket" Mars Ascent Vehicle (MAV) that will return the first Mars rock samples to Earth. The MAV will be the first to take off from another planet. NASA's Perseverance Rover has been collecting samples from Mars since its landing in 2021.

#### WHAT IS MARS ASCENT VEHICLE (MVA)?

The Mars Ascent Vehicle is a small, lightweight rocket to launch rock, sediment, and atmospheric samples from the surface of the Red Planet. A crucial part of the sample return mission, it will be the first rocket to be fired on another planetary surface.

#### INS Visakhapatnam test-fires BrahMos supersonic cruise missile

Indian Naval warship INS Visakhapatnam test-fired naval variant of BrahMos supersonic cruise missile off the western seaboard. INS Visakhapatnam is the Indian Navy's newest indigenously built stealth guided-missile destroyer.

## **BrahMos Supersonic Missile**

BrahMos missile system is the main weapon system of the Indian Navy warships. It has been deployed on almost all of its surface platforms. An underwater version is also being developed that will be used by the submarines of India. The underwater version of the missile system will also be offered for export to friendly foreign nations.

#### **BrahMos Missile Tests**

India had successfully test-fired a new version of BrahMos supersonic cruise missile off the coast of Odisha on January 20, 2022. Prior to that, the Indian Navy had successfully test-fired BrahMos Supersonic Cruise Missile from INS Vishakhapatnam warship on January 11, 2022. The missile had hit the target with pinpoint accuracy. Before this, India had test-fired an air version of BrahMos Supersonic Cruise Missile on December 8, 2021. The missile test was carried out from the integrated test range of Chandipur, off the coast of Odisha. The Indian Air Force had also successfully test-fired an air version of BrahMos

supersonic cruise missile from a Sukhoi fighter aircraft on October 30, 2020. The IAF is integrating the BrahMos missile on over 40 Sukhoi fighter jets.

#### Russian Sovuz rocket launches 34 internet satellites for UK's OneWeb

A Russian Soyuz rocket launched 34 new broadband satellites for British operator OneWeb. Europe's Arianespace launched the Russian rocket from the Guiana Space Center in French Guiana. The satellites will form part of a constellation of low-Earth orbit satellites providing internet service to remote corners of the world. OneWeb have 394 satellites...this launch will take us to 428 satellites in low Earth orbit. The company hopes its global commercial internet service will be operational next year, supported by some 650 satellites.

#### OneWeb

- CEO: Neil Masterson
- > Founder: Greg Wyler
- ➤ Founded: 2012
- Headquarters: London, United Kingdom
- Owner: Bharti Enterprises (42.2%); Eutelsat (22.9%); UK Government; SoftBank; Hanwha; Hughes Network Systems;
- Subsidiaries: Airbus OneWeb Satellites LLC, 1021823 B.C. Ltd.

#### Roscosmos

- Founded: 25 February 1992
- Owner: Russia
- Subsidiaries: TsNIIMash, etc
- Head: Dmitry Rogozin
- Headquartered: Moscow

#### India successfully decommissions communication sat INSAT-4B

Indian Space Research Organisation (ISRO) has decommissioned the INSAT-4B. Indian communications satellite that forms part of the Indian National Satellite System. The INSAT-4B underwent Post Mission Disposal (PMD) at the end of its service, followed by decommissioning on January 24. INSAT-4B is the 21st Indian Geostationary Earth Orbit (GEO) satellite to undergo post-mission disposal, the required propellant for such re-orbiting was included in the









initial fuel budget as a part of standard practice followed in ISRO's GEO mission planning.

## Why does this happen?

The development is in compliance with the UN and Inter-Agency Space Debris Coordination Committee (IADC) recommended space debris mitigation guidelines. The IADC guidelines provide guidance for limiting the generation of orbital debris both during and after space operations. The guidelines also define accepted disposal orbits and other conditions, such as the timeline for abandoning commonly used orbits and controlling the risk to people and property on the Earth.

#### **ISRO:**

Chairman and Space Secretary: Dr S Somanath

Headquarters: Bengaluru, Karnataka

Established: 15 August 1969

## India's first biomass-based hydrogen plant coming up in Madhya Pradesh

commercial-scale India's first biomass-based hydrogen plant will come up at the Khandwa district of Madhya Pradesh. Every day this plant will produce one tonne of hydrogen, from 30 tonnes of biomass feedstock. The plant is being put up by a joint venture of Watomo Energies Ltd and Biezel Green Energy with an investment of Rs 24 crore. The company owns the technology for a 'thermally accelerated anerobic digestion (TAD) reactor' that can produce hydrogen, methane and biochar from biomass. Biezel Green will own 50 per cent in the yet-to-be-named joint venture; the other 50 per cent will come from interested farmers.

#### Madhya Pradesh:

Capital: Bhopal

Chief minister: Shivraj Singh Chouhan

Governor: Mangubhai C. Patel

#### ISRO to kick off its 2022 launch mission with PSLV-C52

The Indian Space Research Organisation's first launch mission of 2022 is slated for February 14, with PSLV-C52 orbiting an earth observation satellite (EOS-04). The launch of Polar Satellite Launch Vehicle (PSLV-C52) is scheduled from the First Launch Pad of Satish Dhawan Space Centre, Sriharikota. PSLV-C52 is designed to orbit the EOS-04, weighing 1710 kg, into a sun synchronous polar orbit of 529 km, ISRO said in an update. PSLV-C52 mission will also carry two small satellites as co-passengers. They are: student satellite (INSPIREsat-1) from Indian Institute of Space Science & Technology (IIST) in association with Laboratory of Atmospheric & Space Physics at University of Colorado, Boulder, and a technology demonstrator satellite (INS-2TD) from ISRO, which is a precursor to India-Bhutan Joint Satellite (INS-2B). EOS-04 is a Radar Imaging Satellite designed to provide high quality images under all weather conditions for applications such as agriculture, forestry & plantations, soil moisture & hydrology and flood mapping.

## NASA's ELaNa 41 mission delayed, new launch soon

Astra Space Inc. announced that its launch of NASA's Educational Launch of Nanosatellites (ELaNa 41) mission has been delayed because an unnamed range asset went out of service. Astra, provides launch services to NASA under a Venture Class Launch Services contract, managed by the agency's Launch Services Program based at Kennedy Space Center in NASA's venture class contracts seek to Florida. encourage development of a new class of small launch vehicles and launch providers. The launch is scheduled to carry four CubeSats, or small satellites, to orbit. CubeSats are a cornerstone in the development of cutting-edge technologies such as communications, satellite-to-satellite communications, and autonomous movement.

## The CubeSats on the ELaNa 41 mission were designed and built by three universities and one NASA center:

- BAMA-1– University of Alabama, Tuscaloosa
- 2. INCA- New Mexico State University, Las Cruces
- 3. QubeSat- University of California, Berkeley
- 4. R5-S1 NASA's Johnson Space Center, Houston

#### What is ELaNa Mission?

Educational Launch of Nanosatellites (ELaNa) is an initiative created by NASA to attract and retain students in the science, technology, engineering and mathematics disciplines. The program is managed by the Launch Services Program (LSP) at NASA's Kennedy Space Center in Florida.









## Dubai firm to launch world's first hydrogenpowered flying boat

Dubai firm, THE JET ZeroEmission announced the launch of the World's first hydrogen-powered flying boat 'THE JET' in Dubai, United Arab Emirates. 'THE JET' features cutting-edge characteristics and technologies, making it capable of flying in silence over the waters at a cruising speed of 40 knots and also has a capacity of carrying 8-12 passengers. This announcement comes as a result of the agreement signed between Swiss startup THE JET ZeroEmission, UAE-based Zenith Marine Services, and US-based DWYN to manufacture and operate 'The Jet' in Dubai. THE JET will have its inaugural flight during the COP28, which is scheduled to be held in Dubai, UAE in 2023.

## North Korea successfully tested its Hwasong-12 intermediate-range ballistic missile from the Jagang Province area.

This was the first nuclear-capable missile testing undertaken by the country since 2017. The Hwasong-12 has an estimated range of 4,500 km (2,800 miles). North Korea's series of missile test-fires, including intermediate-range ballistic missiles, pose a direct and serious threat to us and a grave challenge to international peace and stability. The string of launches in 2022 comes at a delicate time in the region, with Kim's sole major ally China set to host the Winter Olympics next month and South Korea gearing up for a presidential election in March.

#### North Korea:

- Capital: Pyongyang
- Supreme leader: Kim Jong-un
- Currency: North Korean won

## Lok Sabha secretariat launches Digital Sansad app for ease of use, access to proceedings

Lok Sabha Speaker Om Birla has launched the official mobile application of the Parliament named 'Digital Sansad App' to allow citizens to access live proceedings of the House, including the Union Budget 2022 live. The app will make the Parliament and Parliamentary proceedings accessible not only to the members but also to the public of the country.

#### **Details:**

Through the Digital Sansad App, citizens can check what their members of Parliament are doing, what debates they are participating in and what they are saying. Using the app, parliamentarians can also digitally log their attendance. The app contains information on budget speeches since 1947 as well as House discussions from the 12th Lok Sabha to 17th Lok Sabha.

"Keep on going, and the chances are that you will stumble on something, perhaps when you are least expecting it. I never heard of anyone ever stumbling on something sitting down."







# **Obituary**

Veteran Malayalam actress KPAC Lalitha passes away aged 74



Renowned Malayalam film and stage actor KPAC Lalitha died at the age of 74 in Kerala's Kochi. In a career spanning five decades, she starred in over 550 films in Malayalam and Tamil. She won two National Film Awards for Best Supporting Actress along with four Kerala State Film Awards. She got the national award for the character in 'Amaram' in 1999 and for 'Shantham' in 2000. She also held the position of the Chairperson of Kerala Sangeetha Nataka Academy for five years. Born as Maheswari Amma in Kayamkulam of Alappuzha, the actress had joined K.P.A.C (Kerala People's Arts Club), a prominent drama troop in Kerala. She was then given the screen-name Lalitha and later when she started acting in movies, the tag K.P.A.C was added to her name.

Gandhian social worker & freedom fighter Shakuntala Choudhary passes away



Assam's noted Gandhian leader and freedom fighter Shakuntala Choudhury, who was honoured with the Padma Shri award in year 2022, passed away in Guwahati. She was 102. A Gandhian social worker and freedom fighter, Shakuntala Chaudhary was known for her social service, especially women and children. She was popularly known as 'Shakuntala Baideo' Born in 1920, she was primarily associated with the Kasturba Trust and was a torch-bearer of the ideals of Mahatma Gandhi across the Northeast, particularly in Nagaland, Mizoram and Meghalaya and spent a large part of her life at the Kasturba ashram. Shakuntala Choudhary was also closely associated with Acharya Vinoba Bhave and had participated in one-and-a-half-years long 'padayatra' during the Bhooban movement. During Mahatma Gandhi's visit to the northeast, she used to act as an interpreter and helped Gandhiji convey his message to people in Assamese.

Noted Kannada writer and poet Chennaveera Kanavi passes away



Noted Kannada writer and poet Dr. Chennaveera Kanavi passed away at the age of 94 years old. Kanavi was born in Hombal on 18 June 1928. From 1956 to 1983 he worked as a Director for 'Prasaranga' of Karnataka University. Kanavi was considered one of the major poets and writers in the Kannada language and received the Sahitya Akademi Award for his work 'Jeeva Dhwani' (poetry) in 1981. He was popularly known as "Samanvayada Kavi" and "Soujanyada Kavi". In 2011, he was honored with the Sahitya Kala Kaustubha Award. Kanavi had penned more than 15 books, which were a compilation of poems, a collection of essays, and various other books.

#### Awards:

Sahitya Akademi award for his book 'Jeevadhwani'. He also received the Rajyotsava Award, Pampa Award, Sahitya Bangara Award, Sahitya Kala Kaustubha Award etc.









Veteran singer Sandhva Mukherjee passes away aged 90 after cardiac arrest



Singing legend Sandhya Mukherjee, also known as Sandhya Mukhopadhyay passed away at the age of 91 after a cardiac arrest. Sandhya Mukherjee was in the news after she turned down the Padma Shri and was hospitalised in the last week of January for complications arising out of Covid-19 infection. She refused the offer of Padma Shri award when she was government contacted by central officials telephonically for her consent. Sandhya Mukherjee was an Indian playback singer and musician, specialising in Bengali music. She received Banga Bibhushan, the highest civilian honour of the Indian state of West Bengal in 2011. She also won the National Film Award for Best Female Playback Singer for her songs in the films such as Jay Jayanti and Nishi Padma in the year 1970. She has also sang, as a playback singer, in 17 Hindi films.

Music composer and singer Bappi Lahiri has passed away at the age of 69 in Mumbai.

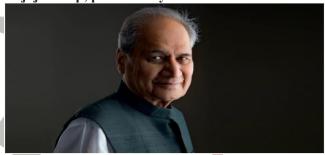


The composer has been ailing for many weeks and was suffering from Obstructive Sleep Apnea. Lahiri was primarily known for his contribution in popularising the sound of disco music in India. Known for his success with Bengali films like Amar Prem, Mandira, Badnam, Aamar Tumi among others, Lahiri also contributed significantly to the soundtrack of Bollywood movies in the 80s and 90s (read Disco Dancer, Namak Halaal, Dance Dance, Sharaabi and more).

## What is Obstructive Sleep Apnea, a condition that Bappi Lahiri suffered from?

Obstructive Sleep Apnea (OSA) is a sleeping-related breathing disorder caused by the repetitive collapse of the upper airway during sleep. OSA occurs when the throat muscles relax intermittently and block the airway. Some signs and symptoms of OSA are excessive daytime sleepiness, loud snoring and abruptly waking up gasping.

Industrialist Rahul Bajaj, former chairman of Bajaj Group, passes away at 83



Industrialist and former chairman of Bajaj Group Rahul Bajaj passed away. He was 83. Rahul Bajaj had pneumonia and also a heart problem. He was admitted to the hospital for last one month. Born on June 10, 1938, Rahul Bajaj acted as the chairman of the Bajaj Group for over 40 years. Rahul Bajaj resigned as the chairman of Bajaj Auto in April last year and was currently the Chairman Emeritus of the firm. Rahul Bajaj was awarded with the third-highest civilian award Padma Bhushan in 2001. Bajaj also served as a Rajya Sabha MP. As per February 2021, Rahul Bajaj was ranked at 421 on the Forbes list of the world's billionaires with a net worth of USD 8.2 billion.

Luc Montagnier, French Nobel laureate who codiscovered HIV, dies at 89



French virologist Luc Montagnier, who won a Nobel Prize for his part in discovering the human







immunodeficiency virus (HIV) that causes AIDS, has died. Montagnier, who was 89, shared half of the 2008 Nobel Prize for Medicine with fellow French scientist Françoise Barre-Sinoussi for their role in discovering the virus. The other half was awarded to German cancer researcher Harald zur Hausen. Montagnier, who sparked controversy in 2020 by saying that he believed the coronavirus was created in a Chinese lab, was born in 1932 in France and gained a PhD in virology at the University of Paris. He later became Director of the World Foundation for AIDS Research and Prevention in Paris.

#### Lata Mangeshkar passes away at the age of 92



Acclaimed singer Lata Mangeshkar breathed her last in Mumbai. She was 92. The singer, called the Nightingale of India, was admitted to the hospital in January with Covid-19 and pneumonia. Daughter of Deenanath Mangeshkar **Pandit** and Shevanti Mangeshkar, Lata belonged to a musical family. Her father was a well-known Marathi musician and theatre artiste.

She was first tutored by her father and later appeared as a child artiste in several of his plays. Lata Mangeshkar recorded her first Hindi song called "Mata Ek Sapoot Ki Duniya Badal De Tu" for the Marathi feature Gajaabhaau, which had released in 1943. Later, she went on to collaborate with some of the most popular names of the Hindi music industry, including the likes of Anil Biswas, Shankar Jaikishan, Naushad Ali and SD Burman among others.

Awards: National Film Awards, BFJA Awards, Filmfare Award for Best Female Playback Singer, Filmfare Special Awards & Filmfare Lifetime Achievement Award.

Honours: Padma Bhushan (1969), Dadasaheb Phalke Award (1989), Maharashtra Bhushan (1997), Padma Vibhushan (1999), Bharat Ratna (2001) & Officer of the National Order of the Legion of Honour (2006)

#### Marathi author, activist Anil Awachat passes away



Renowned Marathi author and social activist Anil Awachat has passed away. Awachat was the founder de-addiction center called Muktangan Rehabilitation Center in Pune in 1986. He was known for his several Marathi books like "Manasa", Swatahavishayi, "Gard", "Karyarat", "Karyamagna" and "Kutuhalapoti". In the early 1970s, he edited a popular Marathi journal called Sadhana which featured his trenchant writings on social issues, notably in his reportage of the 1972 drought that ravaged Maharashtra. His many books include 'Kondmara' (1985) on Dalit atrocities and 'Dharmik' (1989), a penetrating expose on the cult of false godmen in Maharashtra.

## 1964 Olympics hockey gold winning team captain Charanjit Singh passes away



Former Hockey mid-fielder Charanjit Singh has passed away, after suffering a cardiac arrest and prolonged age-related illnesses. He was 90.

He was the Captain of the Indian hockey team which won gold in the Tokyo Olympics of 1964. He was also a member of the Indian team which won silver medals in the 1960 Games in Rome, and in the 1962 Asian Games at Jakarta. A BSC Agriculture degree holder from Government Agriculture College, Lyallpur in pre-partition Punjab, Charanjit started playing hockey in school. He would represent Panjab University and later Punjab Police.He was first picked in the Indian team in 1958.







# **Miscellaneous Events**

#### Apple retains the world's most valuable brand title at \$355.1bn

Apple has retained its position as the most valuable brand in 2022 as well, according to the Brand Finance 2022 Global 500 report. The brand valuation of Apple was recorded at \$355.1 billion in 2022, which is an increase of 35% from last year. This is the highest brand value ever recorded in the Brand Finance Global 500 ranking history. The Indian conglomerate Tata Group has emerged as the most valuable brand from India and also in South Asia. It is the only brand from the country in the top 100. The Global Rank of Tata Group 78. The brand value of Tata Group is US\$23.9 billion.

## Brands in the top 10 list

- 1. Apple
- 2. Amazon
- 3. Google
- 4. Microsoft
- 5. Walmart
- 6. Samsung
- 7. Facebook
- 8. Industrial and Commercial Bank of China,
- 9. Huawei
- 10. Verizon

## Atal Tunnel certified by World Book of Records as **World's Longest Highway Tunnel**

Atal Tunnel has officially been certified by the World Book of Records as the World's Longest Highway Tunnel above 10 thousand Feet. Director General of Border Roads Organisation (BRO) Lieutenant General Rajeev Chaudhry received the award for the stupendous achievement of the organization in constructing this engineering marvel connecting Manali to the Lahaul - Spiti Valley. World Book of Records in the United Kingdom, is an organisation that catalogues and verifies extraordinary records across the world with authentic certification. Atal Tunnel was dedicated to the Nation by Prime Minister Narendra Modi on 3rd October 2020. The 9.02 kilometers long strategically significant Atal Tunnel, that runs under the Rohtang Pass was constructed on the Manali - Leh Highway under the challenging

conditions of freezing temperatures in extremely difficult terrain.

## IndiGo co-founder Rakesh Gangwal resigns from the company's board

IndiGo co-founder and InterGlobe Aviation's nonexecutive, non-independent director Rakesh Gangwal resigned from the board with immediate effect. He is planning to reduce his stake in the airline over the next five years. Gangwal and his family owns 36.61 per cent stake in the parent firm, while another cofounder and Managing Director (MD) Rahul Bhatia and his family owns 37.8 per cent, giving them both a major say in the carrier's strategy. On February 4, InterGlobe Aviation announced the appointment of co-founder Rahul Bhatia as the MD with immediate effect. The two had engaged in a spat in early 2020 when Gangwal sought to modify certain rules in the company's articles of association. He had alleged violations in corporate governance rules at the parent group and wanted to remove an article that prevented co-founders from buying publicly-listed shares in InterGlobe and potentially trigger an open offer for the rest of the company. In December last year, the shareholders of the parent company approved changes to articles of association, including scrapping rules that restricted sale or transfer of shares to a third party.

#### Indigo:

- CEO: Rono Dutta
- Founded: 2005
- Headquarters: Gurugram
- Founders: Rahul Bhatia, Rakesh Gangwal

## Chairman of SC's panel on Char Dham project resigns

Veteran environmentalist Ravi Chopra has resigned as chairman of the Supreme Court's High Powered Committee (HPC) on the Char Dham project, saving that his "belief that the HPC could protect this fragile (Himalayan) ecology has been shattered". Reason behind: The apex court has ordered in December 2021 that accepted the wider road configuration to meet defence needs, instead of what the HPC had recommended and the SC accepted in its earlier order in September 2020.









## **Backgound:**

A flagship initiative of the Centre, the Rs 12,000-crore highway expansion project was envisaged in 2016 to widen 889 km of hill roads to provide all-weather connectivity in the Char Dham circuit — Badrinath, Kedarnath, Gangotri and Yamunotri — in the upper Himalayas. In 2018, the project was challenged by an NGO for its potential impact on the Himalayan ecology due to felling trees, cutting hills and dumping excavated material. In 2019, the SC formed the HPC Chopra to examine the issues, and in September 2020, accepted his recommendation on road width etc. In November 2020, the ministry of Defence sought wider roads to meet the requirement of the Army. In December 2021, the SC modified its September 2020 order on the ground.

## Indian Billionaire Gautam Adani Overtakes Mukesh Ambani as Asia's Richest Person

In accordance with the Bloomberg Billionaires Index, Gautam Adani net worth reached \$88.5 billion overtaking Mukesh Ambani's \$87.9 billion becoming Asia's richest person. With a nearly \$12 billion jump in his personal wealth, he has become the 10th richest person in the world. Globally Elon Musk was named as the world's richest person with a total net worth of \$235 Billion. He was followed by Jeff Bezos with a total net worth of \$183 Billion & Bernard Arnault with a total net worth of \$168 Billion.

## KVIC cancels license of oldest Khadi Institution "Khadi Emporium"

Khadi and Village Industries Commission (KVIC) has cancelled the "Khadi Certification" of its oldest Khadi Institution named Mumbai Khadi & Village Industries Association (MKVIA).

This MKVIA was running the popular "Khadi Emporium" at Metropolitan Insurance House. Mumbai since 1954.

KVIC has cancelled the license of MKVIA as the latter had started selling fake Khadi products, which was against the "zero-tolerance" policy of KVIC against the sale of spurious/non-Khadi products.

#### **KVIC:**

> Founded: 1956

Headquarters: Mumbai

Chairperson: Vinai Kumar Saxena

Parent agency: Ministry of Micro, Small and Medium Enterprises

#### Northern Ireland first minister resigns over post-**Brexit trade rules**

Northern Ireland's First Minister, Paul Givan, resigned recently in protest against post-Brexit trade rules. His resignation comes after Northern Ireland's Agriculture Minister Edwin Poots tried to block the inspection of goods arriving from other parts of the UK. Givan's resignation means Northern Ireland's Deputy First Minister Michelle O'Neill, of pro-Irish nationalist party Sinn Fein, automatically loses her position under Northern Ireland's power-sharing arrangements.

Other ministers at Northern Ireland Assembly can stay in place, but they cannot make any significant decisions, including on the budget.

## Northern Ireland:

Capital: Belfast

Currency: Pound sterling

## United States regains top spot as India's trade partner in 2021

The United States was India's top trading partner in the calendar year 2021 with a trade of \$112.3 billion. The US is followed by China on second. The value of trade between India and China was \$110.4 billion. In 2020. China was India's top trading partner and the US was in the second rank. In 2019 USA was India's top trading partner and China was on second.

## India's list of top ten trading partners:

- 1. USA
- 2. China
- 3. UAE
- 4. Saudi Arab
- 5. Switzerland
- 6. Hong Kong
- Singapore 7.
- 8. Iraq
- 9. Indonesia
- 10. South Korea

#### Urjit Patel quits as Britannia's Additional Director

Former Reserve Bank of India (RBI) governor, Urjit Patel has resigned from the post of non-executive and independent director of Britannia Industries Limited, citing a full-time work assignment starting next







month. He was a part of the Board of the Company. The former governor also confirmed that there was no other reason other than his new project for the resignation. Patel was recently appointed vice president for investment operations in South Asia at the Beijing-based Asian Infrastructure Investment Bank (AIIB). His appointment is effective from 1 February. As the 24th governor of RBI, Patel had succeeded Raghuram Rajan and served as the governor of RBI from 2016-2018. Prior to that, he was RBI's deputy governor in charge of monetary policy.

#### **Britannia Industries:**

- Founded: 1892 in Calcutta, 1918 as Britannia **Biscuit Company Limited**
- Headquarters: Kolkata
- Chairman: Nusli Wadia
- Managing Director: Varun Berry

#### Samsung Surpasses World's top Intel as semiconductor company in 2021

South Korean electronics manufacturing giant, Samsung Electronics surpassed U.S chipmaker Intel to become the world's leading chipmaker by revenue in 2021, according to a report released by research firm Counterpoint Technology Market Research. While Intel posted relatively flattish results, Samsung took the lead with a strong DRAM and NAND flash market performance in 2021. Samsung also saw solid momentum in logic chips this year. Memory vendors continued to lead the industry with SK Hynix and

> "Knowing Is Not Enough; We Must Apply. Wishing Is Not Enough; We Must Do."

Micron taking the third and fourth positions, followed by IC design vendors, including Qualcomm and NVIDIA. The year saw 19% YoY revenue growth.

## **Samsung Electronics:**

- Headquarters: Suwon-si, South Korea
- Founder: Lee Byung-chul
- Founded: 13 January 1969
- CEO: Kim Hyun Suk, Kim Ki Nam & Koh Dong-

## India ranks 85 in Corruption Perceptions Index (CPI) 2021

released Transparency International has the Corruption Perceptions Index (CPI) 2021 in which India has been ranked at 85th spot (Score of 40). The ranking has been topped jointly by three countries-Denmark, Finland and New Zealand (Score of 88). This ranking measures how corrupt each country's public sector is perceived to be. The results are given on a scale of 0 (highly corrupt) to 100 (very clean). 180 countries are ranked in it. Last year (for 2020) India was ranked 86th with a score of 40. This year's Corruption Perceptions Index (CPI) reveals that corruption levels are at a worldwide standstill. The global average remains unchanged for the tenth

> "The Man Who Has Confidence In Himself Gains The Confidence Of Others."







## **Defence Exercise of the Month**

#### Sainva Ranakshetram





Indian army has conducted a first-of-its-kind Hackathon named "Sainya Ranakshetram". hackathon was conducted in the Military College of Telecommunication Engineering (MCTE), Mhow under the overall guidance of the Shimla-based Army Training Command (ARTRAC), one of the seven commands of the Indian Army.

#### **Key points:**

The event was conducted from 01 October 2021 to 31 December 2021 under the name of "Sainya Ranakshetram", in collaboration with the Rashtriya Raksha University. The virtual event witnessed the participation of over 15,000 participants and comprised a number of challenges based on Secure Coding, Software Defined Radio exploitation and Cyber Offensive skills. Further, the main highlights of the event included participants competing with each other in cyberspace against simulated threats. Additionally, the event also hosted a plethora of training sessions and sessions by experts for the participants. Cyber enthusiasts from across India were the cynosure in the entire event.

#### Cobra Warrior



Indian Air Force will participate in a multi nation air exercise named 'Ex Cobra Warrior 22' at Waddington, UK from 06 to 27 March 2022. IAF Light Combat Aircraft (LCA) Tejas will participate in the exercise along with fighter aircraft of UK and other leading Air Forces. The exercise is aimed at providing operational exposure and share best practices amongst the participating Air Forces, thereby enhancing combat capability and forging bonds of friendship. This will be a platform for LCA Tejas to demonstrate its manoeuvrability and operational capability. Exercise Cobra Warrior is the Royal Air Force's premier tactical training event aimed at developing the tactical skills of its aircrew and supporting elements in a Composite Air Operation. Participation in this event will help indigenously developed LCA Tejas to showcase its manoeuvrability and operational capability to the world. The US-developed C-17 will help in the transportation of LCA Tejas to the UK.

#### UK

- Queen: Queen Elizabeth II
- Capital: London
- Prime minister: Boris Johnson
- Currency: Pound sterling

#### **Eastern Bridge-VI**



through To bolster operational efficiency interoperability, the Indian Air Force (IAF) and Royal Air Force of Oman (RAFO) participated in a bilateral exercise named 'Eastern Bridge-VI' Air Force Station Jodhpur. The 6th edition of the exercise is aimed at providing an opportunity to enhance operational capability and interoperability between the two Air Forces. Further, the participation of IAF and RAFO in







this exercise will promote professional interaction, exchange of experiences and enhancement of operational knowledge, besides strengthening bilateral relations between the two countries.

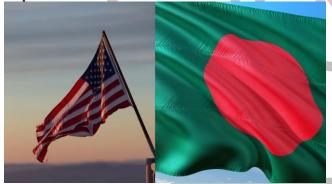
#### India's air arsenal in action:

For Exercise Eastern Bridge VI, IAF's contingent will be in action, which comprises MiG-29, Mirage 2000, Jaguar aircraft among others. Earlier Eastern Bridge V was held in October 2019 at the Air Force Base Masirah, Oman. The IAF contingent at that time comprised MiG-29 and C-17 aircraft. It was the first time that MIG-29 fighter aircraft participated in an International exercise outside India.

## Oman: India's imperative defence partner:

Oman is considered one of the strongest defence partners of India in the Gulf region, and all three services have bilateral exchanges and exercises with Oman's services. Importantly, Oman also provides operational support to the Indian Navy in the Arabian Sea, and India has access to the Duqm port, which has strengthened India's capability and maritime strategy in the Indian Ocean Region.

Cop South 22



US-Bangladesh to conduct joint air exercise named 'Cop South 22' (Joint Exercise 'Cop South 22') -Bangladesh Air Force will engage in a joint tactical airlift exercise named 'Cop South 22' with the United States Air Force. The 'Cop South 22' exercise will be

conducted for six days and will be sponsored by the Pacific Air Force (PACAF). The bilateral exercise 'Cop South 22' will be conducted at Bangladesh Air Force (BAF) Kurmitola Cantonment, Dhaka and Operations Location-Alpha, Sylhet, Bangladesh.

#### **Objective:**

It aims to improve interoperability with the Bangladesh Air Force and support the Armed Forces of Bangladesh's long-term modernization efforts to maintain regional stability. The bilateral Strategic Airlift Exercise will help strengthen bilateral ties between the two countries through tactical airlift sorties and subject-matter expert exchanges.

**CHIRU-2022** 



The Russian, Chinese and Iranian navies undertook naval exercises CHIRU-2Q22 in the Gulf of Oman. The maritime drills conducted in the northern parts of the Indian Ocean aimed at deepening practical cooperation among the navies of the three countries. The participants practised various tactics and operations, such as rescuing ablaze vessels, saving hijacked vessels, shooting at targets, nocturnal shooting at aerial targets, and other tactical manoeuvres as a part of the drill. At least 140 warships and over 60 aircraft with nearly 10,000 military personnel would be taking part in the military exercises.

# "You Are Never Too Old To Set Another Goal Or To Dream A New Dream."





# **Important Days of the Month**

Day	Observed/Celebrated As	Motto/Importance
1 <sup>st</sup> March	Zero Discrimination Day	Zero discrimination against women and girls.
1 <sup>st</sup> March	World Civil Defence Day	To bring attention of the world public to the vital importance of Civil Protection
3 <sup>rd</sup> March	World Wildlife Day	Recovering key species for ecosystem restoration
4 <sup>th</sup> March	National Safety Day	Sadak Suraksha – Jeevan Raksha
8 <sup>th</sup> March	International Women's Day	BreakTheBias
10 <sup>th</sup> March	CISF Raising Day	To mark the establishment of CISF on 10 March 1969
2 <sup>nd</sup> Thursday of March	World Kidney Day	Bridge the knowledge gap to better kidney care
14 <sup>th</sup> March	International Day of Action for Rivers	Rights of Rivers
15 <sup>th</sup> March	World Consumer Rights Day	Fair Digital Finance.
18 <sup>th</sup> March	Ordnance Factory Day	To mark the establishment of India's oldest Ordnance Factory at Cossipore of Kolkata on 18th March 1802.
20 <sup>th</sup> March	International Day of Happiness	Build Back Happier
21 <sup>st</sup> March	International Day of Forests	Forests and sustainable production and consumption
22 <sup>nd</sup> March	World Water Day	GROUNDWATER - MAKING THE INVISIBLE VISIBLE
23 <sup>rd</sup> March	World Meteorological Day	Early Warning and Early Action.
24 <sup>th</sup> March	World Tuberculosis (TB) Day	Invest to End TB. Save Lives
27 <sup>th</sup> March	World Theatre Day	To generate awareness about the importance of theatre arts

"Fake It Until You Make It! Act As If You Had All The Confidence You Require Until It Becomes Your Reality."

"The Future Belongs To The **Competent. Get Good, Get** Better, Be The Best!"









# **Trending Topic of the Month**

## Why Did Russia Invade Ukraine? The Conflict Explained



Russia has attacked Ukraine in what could be the start of war in Europe over Russia's demands for an end to NATO's eastward expansion.

While there had been tensions between Russia and Ukraine, a former Soviet republic, for a long time, the situation began getting out of control in early 2021. In January last year, Ukrainian President Volodymyr Zelenskyy urged US President Joe Biden to let Ukraine join NATO.

This angered Russia, which started sending troops near its Ukraine border for "training exercises" in spring last year and increased it during autumn. By December, the US began hyping up the deployment of the Russian troops and President Biden warned of severe sanctions if Russia invaded Ukraine.

Russia has demanded that the West gives a legally binding guarantee that NATO will not hold any military activity in eastern Europe and Ukraine. Vladimir Putin claims Ukraine is a puppet of the West and was never a proper state anyway.

This is not the first time tensions between Russia and Ukraine has reached a boiling point. Russia had invaded Ukraine in 2014 when rebels backed by President Putin had seized large swathes of easterrn Ukraine and have fought Ukraine's army since then. At that time, Russia had annexed Crimea.

As a former Soviet republic Ukraine has deep social and cultural ties with Russia, and Russian is widely spoken there, but ever since Russia invaded in 2014 those relations have frayed.

Nato's expansion since 1997



57







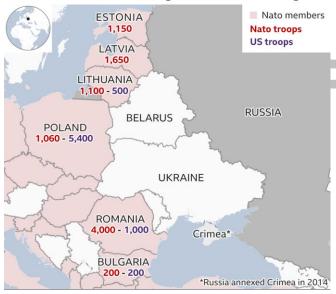
Russia attacked Ukraine when its pro-Russian president was deposed in early 2014. The war in the east has since claimed more than 14,000 lives.



Russia and Ukraine had signed the Minsk peace accord to halt the armed conflict in east Ukraine, including the Donbas region. But as the conflict has continued, Russia says it is sending "peacekeepers" to the region where the conflict is brewing. The West calls it a smokescreen by Moscow to occupy sovereign territory.

The new tension between Russia and Ukraine, which also borders the European Union, has repurcussions for the EU. And that's why the EU, most of who are NATO signatories have joined the US in announcing sanctions against Russian entities.

## What's Putin's problem with Ukraine? Nato and extra US troops in Eastern Europe



Russia has long resisted Ukraine's move towards European institutions, both Nato and the EU. Now, Mr Putin has claimed Ukraine is a puppet of the West and was never a proper state anyway. He demands guarantees from the West and Ukraine that it will not join Nato, a defensive alliance of 30 countries, and that Ukraine demilitarise and become a neutral state. As a former Soviet republic Ukraine has deep social and cultural ties with Russia, and Russian is widely spoken there, but ever since Russia invaded in 2014 those relations have frayed. Russia attacked Ukraine when its pro-Russian president was deposed in early 2014. The war in the east has since claimed more than 14,000 lives.

#### What can the West do?

The West says Russia's move is illegal and UN Secretary-General António Guterres has condemned it as a violation of Ukraine's territorial integrity and sovereignty. But Nato allies have made clear there are no plans to send combat troops to Ukraine itself. Instead they have offered Ukraine advisers, weapons and field hospitals.

## So the chief response will be penalizing Russia with sanctions:

- Germany has halted approval on Russia's completed Nord Stream 2 gas pipeline, a major investment by both Russia and European companies
- The EU has agreed broad sanctions that include 351 MPs who backed Russia's "illegal decision" to recognise the rebel-held regions as independent states in parliament
- The US says it is cutting off Russia's government from Western financial institutions and targeting high-ranking "elites"
- The UK is targeting five major Russian banks and three billionaires.

#### Bigger sanctions are being kept in reserve.

- The ultimate economic hit would be to disconnect Russia's banking system from the international Swift payment system. But that could badly impact the US and European economies.
- Meanwhile, 5,000 Nato troops have been deployed in the Baltic states and Poland. Another 4,000 could be sent to Romania, Bulgaria, Hungary and Slovakia.









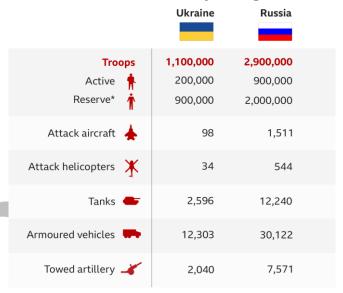


#### What does Putin want?

- First, it wants a legally binding pledge that Nato will not expand further. "For us it's absolutely mandatory to ensure Ukraine never, ever becomes a member of Nato.
- > President Putin has also argued that if Ukraine joined Nato, the alliance might try to recapture Crimea.
- His other core demands are that Nato does not deploy "strike weapons near Russia's borders", and that it removes forces and military infrastructure from member states that joined the alliance from 1997.
- That means Central Europe, Eastern Europe and the Baltics. In reality Russia wants Nato to return to its pre-1997 borders.

"I Think Goals Should Never Be Easy, They Should Force You To Work, Even If They Are **Uncomfortable At The Time."** 

## Ukraine and Russia: Military strength



\*Note: reserve includes people who have had military service within 5 years



"One Of The Lessons That I Grew **Up With Was To Always Stay True** To Yourself And Never Let What Somebody Else Says Distract You From Your Goals."









## **Union Budget 2022-23 Highlights**



Finance Minister Nirmala Sitharaman presented her fourth straight Union Budget in the Parliament. Contrary to widespread expectations that the FM will make announcement on income tax bracket, she had nothing on the lines in her kitty. The FM has however announced some sops on NPS, filing of revised ITR window, start-ups, extended ECLGS scheme to mention a few. Among a range of significant announcements, the decision to tax receivers of digital asset transfers at a high 30% caught some serious attention.

## Pillars of Union Budget 2022-23:

- 1. Productivity
- 2. Climate Action
- 3. Financing Investments
- 4. PM Gati Shakti

## **Sector wise Important Highlights are:**

## **Economy:**

- Capex target expanded by 35.4 per cent from Rs 5.54 lakh crore to Rs 7.50 lakh crore, FY23 effective capex seen at Rs 10.7 lakh crore
- > ECLGS cover expanded by Rs 50,000 to Rs 5 lakh crore
- > Top focus of the budget this year are: PM Gati Shakti(₹20,000 crore), Inclusive Development, Productivity Enhancement, Sunrise

- Opportunities, Energy Transition, Climate Action, Financing of investments
- Productivity-linked incentive schemes in 14 sectors have received excellent response; received investment intentions worth Rs 30 lakh crore

#### Taxes:

- Any cess or surcharge on income not allowed as business expenditure
- > 1 per cent TDS on transfer of virtual assets above a threshold, gifts to be taxed
- > Surcharge on long-term capital gains capped at 15 per cent
- The government will tax income from digital asset transfers at 30%
- ➤ No deduction allowed while computing income except cost of acquisition
- > Gift of cryptocurrencies to be taxed at receiver's
- > ITR can be filed within 2 years from the end of the relevant assessment year.
- Alternate Minimum Tax for cooperative societies to be cut to 15%
- > Proposal will reduce surcharge on cooperative societies to 7%, for those whose income is between Rs 1 crore and Rs 10 crore









Tax deduction limit increased to 14% on employers contribution to NPS account of state govt employees

#### Jobs:

- ECLGS (Emergency Credit Line Guarantee Scheme) to be extended upto March 2023, guaranteed cover extended by another Rs 50,000 crore
- > Digital ecosystem for skilling and livelihood to be launched.
- API based skill credentials, payment layers to find relevant jobs and opportunities

#### Infra:

- National highway network to be expanded by 25,000 kms during FY 22-23, Highways expansion to cost 200 billion rupees in 2022/23
- Desh stack e-portal to be launched to promote digital infra
- > 2,000 kms to be brought under Kavach by FY 22-23
- Four multi-modal national parks contracts will be awarded in FY23
- > One product one railway station will be popularised, 400 new Vande Bharat trains to be introduced
- > PM Gatishakti masterplan: 100 PM Gati Shakti terminals to be set up in next three years

## Housing & urban planning:

- Rs 48, 000 crore is allotted for PM Awas Yojana
- ► 60,000 crore allocated for providing access to tap water to 3.8 crore households
- In 2022-23, 80 lakh households will be identified for the affordable housing scheme under PM Awas Yojana
- A high-level committee for urban planners and economists to be formed for recommendations urban capacity building, planning implementation, and governance.
- > 5 existing academic institutions for urban planning to be designated as Centre for Excellence with endowment fund of Rs 250 crore.

#### **MSMEs & Startups:**

- Rs 6,000 crore programme to rate MSMEs to be rolled out over 5 years
- > MSMEs such as Udyam, e-shram, NCS & Aseem portals will be inter-linked, their scope will be widened
- > They will now perform as portals with live organic databases providing G-C, B-C & B-B services such as credit facilitation, enhancing entrepreneurial opportunities
- > Startups will promoted for Drone Shakti
- PE/VC invested Rs 5.5 lakh crore in startup, expert committee will be set up to suggest measures to help attract investment
- Existing tax benefits for startups, which were offered redemption of taxes for 3 consecutive years, to be extended by 1 more year

#### Agri:

- Govt to pay Rs 2.37 lakh crore towards procurement of wheat and paddy under MSP operations
- 2022-23 has been announced as International Year of Millets
- A rationalised scheme to increase domestic oilseed production will be brought in to cut down imports
- Kisan Drones for crop assessment, land records, spraying of insecticides expected to drive a wave of technology in agri sector
- > Ken Betwa river linking project worth Rs 44,605 crore announced
- > Draft DPRs for 5 river links have been finalised

#### **Electric Vehicles:**

- Battery swapping policy to allow EV charging stations for automobiles will be framed
- Private sector will be encouraged to create sustainable and innovative business models

#### **Education:**

States to be encouraged to revise syllabi of agricultural universities to meet needs of natural, zero-budget & organic farming, modern-day agriculture









- > One class, one TV channel' program of PM eVIDYA will be expanded from 12 to 200 TV channels to provide supplementary education in regional languages for classes 1 to 12
- > Digital university to be set up to provide education; to be built on hub and spoke model

#### Finance & inclusion:

- Rs 1 lakh crore financial assistance to states to be provided in 2022-23 to catalyse investments
- > Proposed to introduce Digital Rupee by RBI using blockchain technology, starting 2022-23
- > 100% of 1.5 lakh post offices will come on the core banking system, enabling access to accounts through net banking, mobile banking, ATMs, and also provide online transfer of funds between post office accounts and bank accounts
- > 75 digital banks in 75 districts will be set up by scheduled commercial banks to encourage digital payments
- > International arbitration centre will be set up in GIFT city to provide faster dispute resolution

#### **Healthcare:**

- > Integrated benefits to women and children through Mission Shakti, Mission Vatsalya, Saksham Anganwadi and Poshan 2.0.
- Rs. 60,000 crore allocated to cover 3.8 crore households in 2022-23 under Har Ghar, Nal se
- An open platform for the national digital health ecosystem will be rolled out
- It will consist of digital registries of health providers and health facilities, unique health identity and universal access to health facilities
- For mental health counselling, a National Tele Mental Health Program will be launched

#### **Telecom:**

- Spectrum auction will be conducted in 2022 for the rollout of 5G
- Scheme for design led manufacturing to be launched for 5G ecosystem as part of PLI scheme to affordable broadband and mobile communication in rural and remote areas
- 5 pc of USO Fund to be provided for R&D and technology upgradation

#### Women & Children:

- Recognising the importance of 'Nari Shakti', 3 schemes were launched to provide integrated development for women and children
- 2 lakh Anganwadis to be upgraded for improving child health

#### **Ease of Business:**

- 75,000 compliances have been eliminated and 1,486 union laws repealed to make it easier for businesses
- Next phase of ease of doing business, ease of living to be launched
- Voluntary exit for corporates to be cut down to 6 months from 2 years

#### **Defence:**

- 68 per cent of capital for defence sector to be earmarked for local industry (up from the 58% last fiscal)
- Defense R&D will be opened up for industry, startups and academia with 25% of defense R&D budget.
- Private industry will be encouraged to take up the design and development of military platforms and equipment in collaboration with DRDO and other organizations through SPV model.

#### Railways:

- 400 new generation Vande Bharat trains to be manufactured in next 3 years
- 2,000 km of rail network to be brought under indigenous technology KAWACH for safety and capacity augmentation

#### Climate & Net Zero:

- Sovereign green bonds will be part of government's borrowing programme in FY23
- 4 pilot projects for coal gasification to be set up
- Rs 19,500 cr additional allocation for PLI for manufacturing high efficiency solar modules has been made

#### **Travel:**

E-passport with embedded chip will be rolled out in 2022-23 for convenience in overseas travel

> "Leaders Think And Talk About The Solutions. Followers Think And Talk About The Problems."

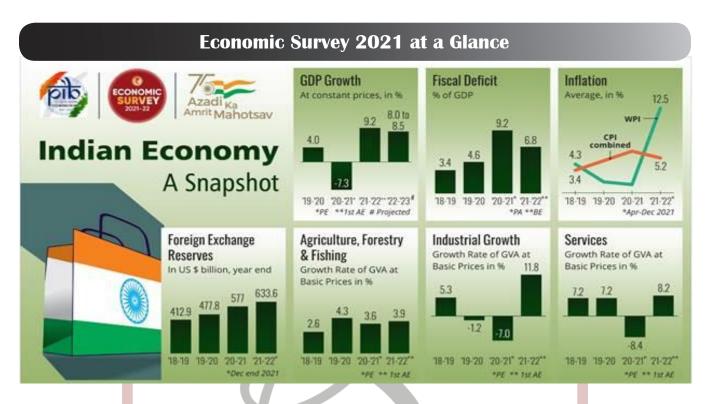












Finance Minister Nirmala Sitharaman tabled the Economic Survey 2021-22 prepared by Principal Economic Adviser Sanjeev Sanyal, which predicted a GDP growth of 8-8.5% for the upcoming financial year. The central theme of this year's Economic Survey is the "Agile approach".

## Key highlights:

- 9.2 percent growth expected in real terms in 2021-22
- GDP projected to grow 8.0-8.5 percent in 2022-23
- Pandemic: government's supply side reforms preparing economy for sustained long-term expansion
- Capex grows by 13.5 percent (Yoy) during April-November, 2021
- Foreign exchange reserves touch US \$ 633.6 billion on 31st December, 2021
- Macroeconomic stability indicators suggest economy well placed to take on challenges of 2022-23

#### **Massive growth in revenue Receipts:**

- Social sector: expenditure on social services as proportion of GDP increases to 8.6 percent in 2021-22 (be) as compared to 6.2 percent in 2014-15
- With revival of economy, employment indicators bounced back to pre-pandemic levels during last quarter of 2020-21
- Merchandise exports and imports rebound strongly and surpass precovid levels
- Bank credit accelerates to 9.2 percent as on 31st December, 2021
- Rs 89,066 crore raised via 75 IPOS; significantly higher than in any year in last decade
- CPI-C inflation moderates to 5.2 percent in 2021-22 (April-December)
- Food inflation averages at a low of 2.9 percent in 2021-22 (April-December)
- Effective supply side management keeps prices of most essential commodities under control
- **Agriculture:** Gva registers buoyant growth of 3.9% in 2021-22
- Railways: capital expenditure sees substantial increase to Rs. 155,181 crore in 2020-21; budgeted to further increase to Rs. 215,058 crore in 2021-22, a five times increase compared to 2014 level
- Per day road construction increases to 36.5 kms in 2020-21 rise of 30.4 percent compared to the previous year
- **SDGS:** overall scrore on Niti Aayog dashboard improves to 66 in 2020-21









# **GS Question Bank(250 Que include)**

## **Statement Based Current Affairs**

1. Recently, Kerala has won the award for the "city 4. with the most Sustainable Transport System".

Consider the following statements regarding Sustainable Transport -

- (1) It refers to any means of transportation that is "non-green" and has high impact on the environment.
- (2) It is also about balancing our current and future
- (3) Examples of sustainable transportation include walking, cycling, transit, carpooling, car sharing, and green vehicles.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only **(3)** and **(2)**
- **(D)** None of the above
- Recently, the International Financial Services 2. Centre Authority (IFSCA) announced a new liberal regulatory regime for facilitating formation 5. of various international and Indian insurance businesses.

Consider the following statements regarding International Financial Services Centres Authority

- (1) It was established in April 2020.
- (2) It was established under the International Financial Services Centres Authority Act, 2014.
- (3) It is headquartered at GIFT City, Gandhinagar in Gujarat.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (1) and (2)
- **(C)** Only (3) and (2)
- **(D)** All are correct
- 3. Recently, the Prime Minister launched the Ayushman Bharat Health Infrastructure Mission. Consider the following statements regarding Ayushman Bharat Health Infrastructure Mission - 6. (1) It is one of the largest Pan-India schemes for strengthening healthcare infrastructure across the country.
  - (2) It has established 11,024 urban Health and Wellness Centres across the country.
  - (3) Under the scheme, a regional research platform for WHO (World Health Organization) will be set up.

Which of the above is/are correct?

- **(A)** Only (1) and (2)
- **(B)** Only (2) and (3)
- **(C)** Only (3) and (1)
- (D) All are correct

According to the World Wide Fund for Nature (WWF), humanity has again used up all biological resources that our planet regenerates during the entire year by 29th July, 2021.

> Consider the following statements regarding to the World Wildlife Fund for Nature -

- (1) It is the world's leading conservation organization and works in more than 100 countries.
- (2) It was established in 1985 and is headquartered Gland. Switzerland.
- (3) Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- The Reserve Bank of India has recently cleared the acquisition of Diwan Housing Finance Corporation by Piramal Capital And Housing Finance.

Consider the following statements regarding House Financing -

- (I) The Housing Finance Company is yet another form of non-banking financial company.
- (II) Housing Finance is designed specifically for financing the purchase or construction of a residential property.
- (III) Housing finance development, helps in boosting equitable economic growth and reducing poverty.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (1) and (2)
- **(C)** Only (3) and (2)
- **(D)** All are correct
- A Working Group set up by the Insurance Regulatory and Development Authority of India (IRDAI) for Traffic Management has recently proposed to add "traffic violation premium" to the vehicle insurance policy.

Consider the following statements regarding IRDAI -

- (I) It was constituted by the Insurance Regulatory and Development Authority Act, 2000
- (II) The agency's headquarters are in Hyderabad, Telangana.







- (III) IRDAI is a 10-member body including the 10. chairman, five full-time and four part-time members appointed by the government of India. Which of the above is/are correct?
- **(A)** Only (2) and (1)
- **(B)** Only (3) and (2)
- **(C)** Only (1) and (3)
- **(D)** All are correct
- Recently, the Union Minister of Civil Aviation has 7. released Krishi Ude Desh Ka Aam Naagrik (UDAN) 2.0 to facilitate movement of agricultural produce by air.

Consider the following statements -

- (1) Krishi UDAN was launched in August 2020 for only national routes.
- (2) Krishi UDAN 2.0 will focus on transporting perishable food products.
- (3) It will be implemented at 53 airports across the country.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (2) and (1)
- (C) Only (3) and (2)
- **(D)** None of the above
- 8. Recently, the Union Minister of Power & New and Renewable Energy has launched the new market segment, Green Day Ahead Market (GDAM) at the Indian Energy Exchange.

Consider the following statements -

- (1) Indian Energy Exchange is the first and largest energy exchange in India providing a nationwide, automated trading platform.
- (2) Day-Ahead Market is a physical electricity trading market for deliveries.
- (3) Term-Ahead Market contracts under TAM cover a range for buying/selling electricity for duration up to 11 days.

Which of the above is/are correct?

- (A) Only (1) and (3) (B) Only (1) and (2)
- (C) Only (3) and (2) (D) All are correct
- 9. Recently, Indian Scientists have designed a photochemical method (Photocatalyst) to convert Carbon Dioxide (CO2) to Methane.

Consider the following statements regarding Methane -

- (1) Methane is gas consisting of one carbon atom and six hydrogen atoms.
- (2) It is the simplest hydrocarbon and flammable.
- (3) Methane is a powerful greenhouse gas.

Which of the above is/are correct?

- (A) Only (1) and (2)
- **(B)** Only (2) and (3)
- **(C)** Only (3) and (1)
- (D) All are correct

Recently, the Supreme Court has directed the Supervisory Committee to take an immediate and firm decision on the maximum water level that can be maintained at Mullaperiyar dam amidst torrential rains in Kerala.

> Consider the following statements regarding Periyar River -

- (1) The Periyar River is the longest river in the state of Kerala with a length of 244 km.
- (2) It is also known as "Lifeline of Kerala" as it is one of the few perennial rivers in the state.
- (3) Periyar River originates from Sivagiri hills of Western Ghats, in Assam.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- According to a new report, Global agricultural 11. productivity is not growing as fast as the demand for food, amid the impact of climate change.

Consider the following statements regarding TFP and Yield -

- (1) Yield measures output per unit of a single
- (2) TFP captures the interaction between multiple agricultural inputs and outputs.
- (3) TFP is stands for "Total Facture productivism" Which of the above is/are correct?
- (A) Only (1) and (3)
- **(B)** Only (1) and (2)
- **(C)** Only (3) and (2)
- (D) All are correct
- The proposal for Indian regulators to consider a **12.** new gene editing technique has been pending with the Genetic Engineering Appraisal Committee for almost two years.

Consider the following statements regarding Genetic Engineering Appraisal Committee -

- (1) It functions under the Ministry of Environment, Forest and Climate Change.
- (2) It is responsible for the appraisal of activities involving large-scale use of hazardous microorganisms and recombinants.
- (3) GEAC is chaired by the cabinate minister of ministry of Environment, Forest and Climate Change.

Which of the above is/are correct?

- **(A)** Only (1) and (2)
- **(B)** Only (2) and (3)
- **(C)** Only (3) and (1)
- **(D)** All are correct
- 13. Recently, the Prime Minister launched the Ayushman Bharat Health Infrastructure Mission.









Consider the following statements about National Health Mission -

- (1) NHM was launched by the government of India in 2013.
- (2) National Rural Health Mission was launched
- (3) The main programmatic components include Health System Strengthening in rural and urban

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- 14. Recently, the International Financial Services Centre Authority (IFSCA) announced a new liberal regulatory regime.

Consider the following statements regarding International Financial Services Centres Authority

- (1) It was established in April 2020 under the International Financial Services Centres Authority Act, 2019.
- (2) The Authority shall regulate all such financial services, financial products and Financial Institutions in an IFSC.
- (3) An IFSC enables bringing back the financial services.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (1) and (2)
- (C) Only (3) and (2)
- (D) All are correct
- 15. Govt keeps interest rates on small savings schemes unchanged for O3FY22.

Consider the following statements regarding Wholesale Price Index -

- (1) It measures the changes in the prices of goods sold and traded in bulk.
- (2) It is published by a financial committee headed by RBI Governor.
- (3) It is the most widely used inflation indicator in India.

Which of the above is/are correct?

- **(A)** Only (1) and (2)
- **(B)** Only (2) and (3)
- **(C)** Only (3) and (1)
- **(D)** All are correct
- **16.** Recently, the Uttarakhand government has announced that it will initiate valuation of its natural resources in the form of "Gross Environment Product" (GEP).

Consider the following statements regarding GEP

- (1) It was established back in 2000 by ecological economists.
- (2) It is an assessment system to measure ecological status.
- (3) GEP accounts for the economic value of the ecosystem.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- 17. Indian Navy is set to receive three of 24 MH-60 Romeo multirole helicopters from United States (US) in July 2021.

Consider the following statements regarding ALH MK- III -

- (1) Apart from Romeo, Indian Navy also inducted three indigenously-built advanced light helicopters called ALH MK-III.
- (2) These helicopters will be used to ensure coastal security and maritime reconnaissance.
- (3) They are long range search and rescue machines.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (1) and (2)
- **(C)** Only (3) and (2)
- (D) All are correct
- The Sustainable Development Solutions Network 18. for the United Nations released the World Happiness Report 2021, a day before the International Happiness Day.

Consider the following statements regarding International Happiness Day -

- (I) It is celebrated every year on 20th March to highlight the importance of happiness in the diurnal lives of people.
- (II) The United Nations started to celebrate the International Day of Happiness.
- (III) It was started in 2010.
- (A) Only (1) and (2)
- **(B)** Only (2) and (3)
- **(C)** Only (3) and (1)
- **(D)** All are correct
- 19. According to WHO India continues to label itself as a country with no Community Transmission (CT) since the beginning of the Covid-19 pandemic.

Consider the following statements regarding Stages of a Pandemic -

(1) Local Transmission is defined as the transmission through direct contact with an infected person within the country.











- (2) Community Transmission signifies that a virus circulating in the community. is
- (3) Imported Transmission is when the disease actually becomes an epidemic in a country.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- 20. According to a recent study, Hydrogen is a pollution-free energy source when it's extracted from water using sunlight instead of fossil fuels. Consider the following statement regarding Hydrogen Fuel -
  - (I) Hydrogen and fuel cells (FCs) are usually considered inseparable.
  - (II) Steam-methane reforming is a method of production of Hydrogen Fuel.
  - (III) Through electrolysis method hydrogen is extracted from methane.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (1) and (2)
- (C) Only (3) and (2)
- (D) All are correct
- Recently, the Assam forest department has signed 21. a MoU with two NGOs and adopted a Vision Document to raise at least 1,000 black softshell turtles by 2030.

Consider the following statements regarding Turtles -

- (1) Turtles are the reptiles of the order Testudines
- (2) World Turtle Day is observed on 23rd June.
- (3) It can reside inside freshwater or saltwater.

Which of the above is/are correct?

- (A) Only (1) and (2)
- **(B)** Only (2) and (3)
- (C) Only (3) and (1)
- **(D)** All are correct
- 22. Recently, a new research conducted by Pew Research Center has found that the coronavirus pandemic has pushed about 32 million Indians out of the middle class and increased poverty in the country.

Consider the following statementis regarding Pew Research Center -

- (1) The Pew Research Center is a nonpartisan British think tank.
- (2) In 1990, the Times Mirror Company founded the Times Mirror Center for the People & the research project.
- (3) The Pew Charitable Trusts became its primary sponsor in 1996, when it was renamed the Pew Research Center for the People & the Press.

Which of the above is/are correct?

- **(A)** Only (1) and (3)
- **(B)** Only (2) and (1)
- **(C)** Only (3) and (2)
- **(D)** None of the above
- An atmospheric scientist made an impassioned 23. case for Huawei being the best place on Earth to experience the wonders of rainbows.

Consider the following statements regarding Hawai'i: -

- (I) Hawai'i's is located in the subtropical Pacific.
- (II) It's overall weather pattern is dominated by trade winds.
- (III) It is the only state outside South America.
- (A) Only (I) and (II)
- **(B)** Only (II) and (III)
- (C) Only (III) and (I)
- (D) All are correct
- 24. The Ministry of Agriculture and Farmers Welfare signed a Memorandum of Understanding (MoU) with the Central Silk Board on a convergence model for the implementation of Agroforestry in the silk sector.

Consider the following statements regarding Sub-Mission on Agroforestry (SMAF) Scheme -

- (1) The Ministry of Labour and Employment has been implementing the SMAF since 2016-17.
- (2) At present, the scheme is being implemented 20 and in States UTs.
- (3) Exotic species are not promoted by the scheme.

Which of the above is/are correct?

- (A) Only (1) and (3)
- **(B)** Only (2) and (1)
- (C) Only (3) and (2)
- **(D)** None of the above
- 25. Recently, the USA President has envisaged a New Peace Initiative (Plan) to decide on the roadmap for peace in Afghanistan.

Consider the following statements regarding Afghanistan -

- (I) Republic of Afghanistan is a landlocked country at the mid of Central and South Asia.
- (II) The current president of this country is Ashraf Ghani.
- (III) The currency of this country is rival. Which of the above is/are correct?
- (A) Only (I) and (III)
- **(B)** Only (I) and (II)
- (C) Only (III) and (II)
- (D) All are correct













## **Statement Based General Awareness**

- 1. Consider the following statements:
  - 1. Raj Singh, vish viriksh was written by Bankim Chandra Chatteriee.
  - 2. Sarat Chandra wrote novel Srikanta, Devdas. Which of the statements given above is/are NOT correct?
  - **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- **(D)** Neither 1 nor
- 2. Consider the following statements:
  - 1. Sikandar Lodi established the Agra city.
  - 2. The founder of the Lodi dynasty was Bahlol Lodi.

Which of the statements given above is/are correct?

- **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- (D) Neither 1 nor 2
- 3. Consider the following statements:
  - 1. The founder of the Tughlaq dynasty was Muhammad bin Tughlu
  - 2. Ghiyasuddin Tughlaq had a tense relationship with Sheikh Nizamuddin Auliya.

Which of the statements given above is/are correct?

- **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- **(D)** Neither 1 nor 2
- Consider the following statements: 4.
  - 1. The Gupta Empire stretched arc northern, central and parts of southern India between CE 210 and 305 CE.
  - 2. The Gupta period is known as the "Golden Age" in the history of India.

Which of the statements given above is/are correct?

- **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- (D) Neither 1 nor 2
- Consider the following statements: 5.
  - 1. Kanishka organized the fourth Buddhist Sangti in Kashmir, presided over by Vasumitra and Ashwaghosh.
  - 2. In the second Buddhist music, Buddhism was divided into two - Hinayana and Mahayana.

Which of the statements given above is/are correct?

- **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- **(D)** Neither 1 nor 2
- 6. Consider the following statements.
  - 1. The Grand Trunk Road (GT Road) travels in three South Asian countries-India Pakistan and Bangladesh.
  - 2. The stretch of the GT Road between Kolkata and Delhi is known as NH 2.

Which of the statements given above is/are correct?

- **(A)** only 1
- **(B)** Only 2
- **(C)** both 1 and 2
- (D) none of these
- 7. Consider the following statements regarding latitudes and longitudes?
  - 1. Longitudes are angular distance of a place from the equator.
  - 2. Latitudes are angular distance of a place from the prime meridian.

Choose the incorrect statement(s)?

- **(A)** only 1
- **(B)** Only 2
- **(C)** both 1 and 2
- (D) none of these
- 8. Consider the following correct statements.
  - 1. Narmada river is known as "Life Line of Madhya Pradesh and Gujarat" for its huge contribution to the state of Madhya pradesh and Gujarat in many ways.
  - 2. Narmada is one of only three major rivers in peninsular India that run from east to west along with the Tapti River and the Mahi River.
  - **(A)** only 1
- **(B)** Only 2
- **(C)** both 1 and 2
- **(D)** none of these
- 9. Consider the following correct statements.
  - 1. The Green Revolution started in 1965 with the first introduction of High Yielding Variety (HYV) seeds in Indian agriculture.
  - 2. The term green revolution was coined by an official at the U.S. State Department, Norman Borlaug in 1968.
  - **(A)** only 1
- **(B)** Only 2











- **(C)** both 1 and 2
- (D) none of these
- 10. Consider the following correct statements.
  - 1. Deccan Plateau is the peninsular tableland lying to the south of the Tropic of Cancer. Its outer boundary is marked by the 300 m contour line, with Vindhya-Kaimur watersheds in the north.
  - 2. The Deccan plateau is located between two mountain ranges, the Western Ghats and the Eastern Ghats,
  - **(A)** only 1
- **(B)** Only 2
- **(C)** both 1 and 2
- (D) none of these
- 11. Consider the following statements:
  - 1. Supreme Court and high court judges are not appointed to various posts in tribunals and commissions, after their retirement.
  - 2. President can remove a judge when parliament approves with a majority of the total membership of each house in favour of impeachment.

Which of the statements given above is/are not correct?

- **(A)** 1 only
- **(B)** 2 only
- (C) Both 1 and 2
- **(D)** Neither 1 nor 2
- 12. Which of the following statements is true?
  - I. The Balance of Payments (BOP) is an overall statement of a state's economic transactions.
  - II. Globalization is the shift towards a more united and interdependent world economy. Select the correct option.
  - (A) Only I
- (B) Only II
- (C) Both I & II
- (D) Neither I nor II
- 13. Which of the following statements is true?
  - I. EXIM Policy is the export-import policy of the government that is announced every five
  - II. The three major international economic institutions are WTO, IMF, World Bank. Select the correct option.
  - (A) Only I
- (B) Only II
- (C) Both I & II
- (D) Neither I nor II
- 14. Which of the following statements is true?
  - I. World Trade Organization (WTO) was established in 1998 to replace GATT (General Agreement on Tariffs and Trade.
  - II. International Monetary Fund (IMF) consists of 189 countries that work in

collaboration to foster global monetary cooperation.

Select the correct option.

- (A) Only I
- (B) Only II
- **(C)** Both I & II
- **(D)** Neither I nor II

Which of the following statements is true? 15.

- I. Liberalization was brought about with an idea that any regulations or restrictions that were imposed on free trade.
- II. Privatization refers to giving more opportunities to the all sector.

Select the correct option.

- (A) Only I
- (B) Only II
- **(C)** Both I & II
- (D) Neither I nor II

**16.** Which of the following statement (s) is true?

- I. Movement of a fan is an example of a nonuniform accelerated motion.
- II. Glass is a bad thermal conductor. Select the correct option.
- (A) Only I
- (B) Only II
- (C) Both I & II
- (D) Neither I nor II

17. Which of the following statement (s) is true?

- I. According to kepler's first law, a moving planet follows circle path.
- II. Newton's law of gravitation, states that any particle of matter in the universe attracts any other with a force.

Select the correct option.

- (A) Only I
- (B) Only II
- (C) Both I & II
- (D) Neither I nor II
- 18. Which of the following statement (s) is true?
  - I. Meter in a vehicle that calculates distance covered by the vehicle is called odometer.
  - II. Throttle Valve for regulating the supply of a fluid (as steam) to an engine.

Select the correct option.

- (A) Only I
- (B) Only II
- **(C)** Both I & II
- **(D)** Neither I nor II
- 19. Which of the following statement (s) is true?
  - I. A stone of same size has more inertia
  - II. Reflection from a smooth surface like that of a mirror is called regular.

Select the correct option.

- (A) Only I
- (B) Only II
- (C) Both I & II
- (D) Neither I nor II













- 20. Which of the following statements is true?
  - **I.** Oxidation process by which electric current is passed through a substance to effect a chemical change.
  - II. precipitation is any product of the condensation of atmospheric water vapour. Select the correct option.
  - (A) Only I
- (B) Only II
- (C) Both I & II
- **(D)** Neither I nor II
- 21. Consider the following statements.
  - 1. Cements harden because of hydration, chemical reactions that occur independently of the mixture's 24. water content.
  - 2. Cement is manufactured through a closely controlled chemical combination of calcium, silicon, aluminium, iron and other ingredients. Which is/are correct statement?
  - (A) Only I
- **(B)** Only 2
- **(C)** Both 1 and 2
- (D) None of these
- 22. Consider the following statements.
  - 1. When chemical bond is formed, the potential energy decreases.
  - 2. Making chemical bonds always releases energy 25. because the bond is formed in order to make the atoms more stable (less energy).

Which is/are correct statement?

- (A) Only I
- **(B)** Only 2
- (C) Both 1 and 2
- (D) None of these
- 23. Consider the following statements.

- 1. Galvanization is the process of applying a protective zinc coating to steel or iron, to prevent rusting.
- 2. Zinc is also used extensively in alloys such as brass, nickel silver and aluminum solder, and in batteries.
- 3. The most common zinc ore is sphalerite (zinc blende), a zinc sulfide mineral.

Which is/are correct statement?

- (A) Only I
- **(B)** 1 and 2
- **(C)** 1 and 3
- **(D)** All of the above
- Consider the following statements.
  - 1. Bleaching powder is chemically, calcium oxychloride (CaOCl2).
  - 2. Silver bromide is prepared industrially by the reaction between aqueous solutions of silver nitrate and potassium bromide.
  - 3. Neptunium is the first artificially produced element.

Which is/are correct statement?

- (A) Only I
- **(B)** 1 and 2
- **(C)** 1 and 3
- **(D)** All of the above
- Consider the following statements:
  - 1. Dolly Clone was an example of a chicken.
  - **2.** A snake is a animal with cold blood.

Which of the statements given above is / are correct?

- **(A)** 1 only
- **(B)** 2 only
- **(C)** Both 1 and 2
- **(D)** Neither 1 nor 2

# **Current Affairs**

- 1. The Union Ministry of Culture will organize a 3. first-of-its-kind Global Summit on "Reimagining Museums in India" is being organised in partnership with which company?
  - (A) Bloomberg (B) Reuters
- - **(C)** Thomson
- **(D)** Morningstar
- (E) Investopedia
- 2. The Board of Control for Cricket in India plans to 4. launch a full-fledged women's Indian Premier League by which year?
  - **(A)** 2024
- **(B)** 2022
- **(C)** 2025
- **(D)** 2026
- **(E)** 2023

- Indian Army launches a vocational training centre for women "Waadiyan Bakery Project" in which district of Jammu & Kashmir to enhance women skill development?
  - (A) Poonch
- (B) Srinagar
- (C) Kulgam
- (D) Kishtwar
- (E) Bandipora
- Padma Shri awardee and social worker Ibrahim Sutar, who has passed away recently hailed from which state?
  - (A) Kerala
- (B) Andhra Pradesh
- (C) Karnataka
- (D) Maharashtra
- (E) Telangana









- 5. Who has become the first man to win gold medals in Alpine skiing at three straight Olympics? (A) Vincent Kriechmayr (B) Matthias Mayer (C) Beat Feuz (D) Dominik Paris (E) Aleksander Aamodt
- 6. Who has assumed the additional charge of the post of Chairman and Managing Director of Power System Operation Corporation Limited?
  - (A) Meenakshi Davar
- **(B)** Praveen Kumar
- (C) Ranjan Srivastava
- **(D)** S R Narasimhan
- (E) Ruchit Uppal
- 7. What is the rank of India in Global Digital Skills Index 2022 released by Salesforce?
  - **(A)** 63
- **(B)** 56
- **(C)** 42
- **(D)** 41
- **(E)** 67
- 8. What is the rank of Uttar Pradesh in India Press Freedom Report 2021 which has released by the Rights and Risks Analysis Group?
  - (A) First
- (B) Second
- (C) Third
- **(D)** Fourth
- (E) Fifth
- Which country has won the AFC Women's Asian 9. Cup India 2022 final title by defeating South Korea?
  - (A) Russia
- (B) United States
- (C) China
- (D) Japan
- (E) South Korea
- ICICI Lombard General Insurance has partnered 10. with which payment bank to offer cyber insurance?
  - (A) Paytm Payments Bank
  - (B) Fino Payments Bank
  - (C) Jio Payments Bank
  - (D) Airtel Payments Bank
  - (E) India Post Payments Bank
- Which Bollywood actress has named as Brand 11. Ambassador of Bata India?

  - (A) Nora Fatehi (B) Disha Patani
  - (C) Alia Bhatt (D) Kriti Sanon
  - (E) Shraddha Kapoor
- 12. Amazon India has signed a memorandum of understanding with which state to turn rural women into entrepreneurs?

- (A) Kerala
- (B) Andhra Pradesh
- (C) Karnataka
- (D)Maharashtra
- (E) Telangana
- Which software company has announced its 13. partnership with Microsoft for its launch of "Microsoft Cloud for Retail"?
  - (A) Sonata Software
- **(B)** Mphasis
- (C) Mindtree
- (D)Tech Mahindra
- (E) Birlasoft
- 14. Which state government has signed an MoU with the Social Alpha to support innovative and clean energy technology programmes in the state?
  - (A) Tamil Nadu
- (B) Karnataka
- (C) Maharashtra
- (D)Kerala
- (E) Uttar Pradesh
- 15. The ancient festival of Kanchoth is annually celebrated in which stat/UT?
  - (A) Lakshadweep
- (B) Haryana
- (C) Chandigarh
- (D) Punjab
- (E) Jammu & Kashmir
- Which digital healthcare platforms has signed 16. Bollywood star Amitabh Bachchan as the official brand ambassador?
  - (A) PharmEasy
- **(B)** MediBuddy
- (C) ONEmg
- (D)MedPlus
- **(E)** Netmeds
- 17. Who has been taken charge as the director of Vikram Sarabhai Space Centre?
  - (A) Dr S Unnikrishnan Nair
  - (B) Dr S Srinivasan
  - (C) Dr Suresh Gupta
  - (D)Dr Vasant R Gowariker
  - (E) Dr. Brahm Prakash
- Which armed force has launched a nationwide 18. operation "Operation AAHT" to curb human trafficking?
  - (A) CRPF
- (B) ITBP
- (C) RPF
- (D)CISF
- (E) BSF
- What is the theme of Financial Literacy Week 2022?
  - (A) Go Digital, Go Secure
  - (B) Go Digital, Go Safe
  - (C) Go Active, Go Safe









(D) Go Digital, Go Active

(E) Pir Panjal Tunnel

	(E) Go Safe, Go Digita	1	22	A 11 ( TD ) TD   TD	
20.	India's first Biomass-babuilt in which state? (A) Madhya Pradesh (C) Rajasthan (E) Gujarat	(B) Uttar Pradesh (D) Maharashtra	23.	According to TomTom 725 list, which city of congested city in the wor (A) Mumbai (C) Patna (E) New Delhi	India is the fifth most
<ul><li>21.</li><li>22.</li></ul>	signed a pact with which sheep farming sector?  (A) Auckland (C) Canada (E) New Zealand	f Jammu and Kashmir has nich country to transform  (B) Australia (D) Iceland  has been officially certified	24.	Who has been appoint Selection Commission? (A) H. N. Trivedi (C) B. R. R. Iyenger (E) N. K. Aggarwal Which union minister hat Late Madhavrao Limaye	(B) Amar Singh (D) S. Kishore s received eighteenth
		cords as "World's Longest e 10,000 Feet"? (B) Atal Tunnel (D) Z-Morh Tunnel	tory	(A) Rajnath Singh (C) Piyush Goyal (E) Narendra Modi	(B) Nitin Gadkari (D) Priyanka Gandhi
1.	between a young boy	captures the conversation named Nachiketas and a lowing gods is talking to  (B) Lord Karthikeya  (D) Lord Shiva	6.	(A) Akbar (C) Shah Jahan In which year, Akbar bui Khana ("House of Worsh (A) 1562 (C) 1582	
2.	The earliest reference in which of the followin (A) Allahabad Pillar in (B) Eran inscription of (C) Aihole inscription (D) Bhitan inscription of	scription Bhanugupta of Pulkesin II	7 <b>.</b>	Which of the following the Jews? (A) Dhammapada (C) Sahib  Who among the follow	(B) Torah (D) Tripatika
3.	The famous Dilwara are a sacred pilgrimage (A) Buddhists (C) Sikhs	temples of Mount Abu place for the  (B) Jains (D) Parsis	9.	Movement? (A) Mahatma Gandhi (C) M.A Jinnah	<ul><li>(B) Ali Brothers</li><li>(D) Syed Ahmed Khan</li></ul>
4.	Which dynasty was rule at the time of the Battle (A) Sangam (C) Tuluva	ing in Vijaynagar empire of Talikota? (B) Aniridu (D) Saluva	9.	The National song of was composed in la (A) Pali (C) Bengali	
5.	Ustad Mansur was a Mughal ruler's regime?	famous painter of which	10.	Who was the vicer Jallianwala Bagh Massac (A) Lord Curzon	-
		7	2		

(C) Lord Chelmsford (D) Lord Canning (A) Postmodernism **(B)** Naturalism (C) Modernism (D) Realism 11. All India Kisan Sabha was founded in which 19. Who attended all three-round table **(A)** 1936 **(B)** 1946 conferences? **(C)** 1956 **(D)** 1966 (A) M K Gandhi (B) M M Malviya (C) B R Ambedkar (D) Annie Besant Who gave the slogan Inquilab Zindabad? 12. (A) Hasrat Mohani 20. Which among the following is the resting place (B) Ashfaqulla Khan of Morarji Desai? (C) Bhagat Singh (A) Abhay Ghat **(B)** Ekta Sthal (D) Chandrashekhar Azad (C) Shakti Sthal (D) Vijay Ghat 13. The Sarvodaya Movement was started by The ancient goal of astrology was to-(A) Vinoba Bhave (A) Make a more accurate model of the (B) Bal Gangadhar Tilak universe (C) Mahatma Gandhi **(B)** Predict human events (D) Vivekananda (C) Understand the origin of Earth **(D)** Predict the passing of the seasons **14**. Who conquered Sind in 712 AD? Who among the following was a Brahmavadini (B) French 22. (A) Arabs (C) Greeks **(D)** Mongols who composed some hymns of the Vedas? (A) Gargi (B) Lopamudra (C) Savitri (D) Leelavati 15. The Shiites believed that the Umayyad (A) Should pray more **(B)** Should not be in power 23. Who has been described as the "destroyer of (C) Got special treatment the Sakas, the Yavanas and the Pallavas"? (D) Should rule (A) Skanda Gupta (B) Gautamiputra Satakarni Which of the following was not a feature of 16. (C) Simuka Indus Valley Civilization? (D) Satakarni I (A) Use of Iron **(B)** Town Planning (C) Drainage system (D) Use of Bronze **24**. Which among the following kings was also known as Mamallan (great wrestler)? (A) Pulakeshin II 17. Who started Shudhi Movement? (A) Dayananda Saraswathy (B) Mahendravarman I (B) Sri Aurobindo (C) Narasimhavarman I (C) Swami Vivekananda (D) Harshavardhan (D) Yashoda Bhai 25. Which was capital of Harshavardhana?

# Geography

Tehri Dam is situated at which river, and in 1. which state?

What literary period is the beat generation

(A) Ganga, Uttar Pradesh

aligned with?

- (B) Bhagirathi, Uttarakhand
- (C) Krishna, Maharashtra

(D) Jhelum, Jammu and Kashmir

(A) Kanheri

(C) Belur

2. Bhakra Nangal Dam is situated at which river, and in which state?

(B) Kusinagar

(D) Kannauj

(A) Sutlej, Himachal Pradesh

18.









- (B) Ramganga, Uttarakhand
- (C) Yamuna, Uttar Pradesh
- (D) Kaveri, Andhra Pradesh
- 3. Sardar sarovar dam is situated at which river, and in which state?
  - (A) Chambal, Rajasthan (B) Shipra, Maharashtra 11.
  - (C) Gomti, Uttar Pradesh (D) Narmada, Gujarat
- Hirakud dam is situated at which river, and in 4. which state?
  - (A) Mahanadi, Orissa
  - (B) Beas, Jammu and Kashmir
  - (C) Godavari, Maharashtra
  - (D) Periyar, Kerala
- 5. Nagarjuna sagar dam is situated at which river, and in which state?
  - (A) Beas, Jammu and Kashmir
  - (B) Godavari, Maharashtra
  - (C) Krishna, Telangana
  - **(D)** Kaveri, Tamilnadu
- In which of the following landforms are 15. 6. 'Mushroom rocks' found?
  - (A) Desert
- **(B)** Delta
- (C) Glacial moraine
- (D) Sea cave
- 7. Taklamakan Desert is situated in
  - (A) Western Asia
  - **(B)** Southern fringe of Sahara in Africa
  - (C) North America
  - (D) Central Asia
- 8. Which of the following are examples of 17. peneplains?
  - 1. Central Russia
  - 2. Paris Basin
  - **3.** Eastern England
  - 4. Upper Mississippi Basin

Select the correct answer using the codes given below:

- **(A)** 1 and 2 only
- **(B)** 2 and 3 only
- **(C)** 1 and 4 only
- **(D)** 1, 3 and 4 only
- The oldest oil field in India is 9.
  - (A) Bombay High, Maharashtra
  - (B) Ankleshwar, Gujarat
  - (C) Navagam, Gujarat

- (D) Digboi, Assam
- 10. Dalmianagar of Bihar is famous for-
  - (A) Silk
- (B) Cement
- **(C)** Leather
- (D) Jute
- Koderma in Jharkhand is the leading producer of-
  - (A) Bauxite
- **(B)** Mica
- (C) Iron ore
- (D) Copper
- 12. Kakrapar atomic power plant is situated at?
  - (A) Rajasthan
- **(B)** West Bengal
- (C) Gujarat
- (D) Karnataka
- 13. The Shivanasamudra waterfall form in which of these rivers?
  - (A) Narmada
- (B) Vaigai
- (C) Damodar
- (D) Kauvery
- Kaziranga wildlife sanctuary is in which state? 14.
  - (A) Assam
- **(B)** Bihar
- (C) Madhya Pradesh
- (D) Uttar Pradesh
- What makes the Ankleshwar famous?
  - (A) Coal mining
  - **(B)** Exploration of oil and natural gas
  - (C) Iron and steel industries
  - (D) Cotton textile industries
- 16. Where is the India's permanent research station Dakshin Gangotri?
  - (A) Great Himalayas
- (B) Indian Ocean
- (C) Antarctica
- (D) Arabian Sea
- Which of the following cities are called the twin cities?
- (A) Delhi and Faridabad
- (B) Mumbai and Pune
- (C) Hyderabad and Secunderabad
- **(D)** Bangalore and Mysore
- 18. What is the name of southernmost hill ranges in India?
  - (A) Nilgiri Hills
- (B) Annamalai Hills
- (C) Nallamalai Hills
- **(D)** Cardamom Hills
- Son river originates from which of the following 19. place?
  - (A) Amarkantak
- **(B)** Gomat Tal
- (C) Mapchachungo
- (D) Gomukh
- 20. Which of the following states has the highest





irrigation coverage?

- (A) Punjab
- (**B**) Karnataka
- (C) Uttar Pradesh
- (D) Uttarakhand
- 21. The soil which cracks and shrinks most as it dries is.
  - (A) Black clay soil
- (B) Red porous soil
- (C) Sandy soil
- (D) Loamy soil
- 22. Which of following is the only perennial river of the state, which enters Rajasthan at Chaurasigarh? 25.
  - (A) Loni
- (B) Ghaggar
- (C) Hakra
- (D) Chambal
- 23. Which of the following himalayan mountain range where the Kashmir Valley lies?
  - (A) Siwalik and Pir Panjal
  - (B) Pir Panjal and Dhauladhar

# **Polity**

- 1. In which of the following Union Territories there 5. are administrators, where there is no post of Lieutenant Governor?
  - (A) Delhi
- **(B)** Puducherry
- (C) Lakshadweep
- (D) Andaman Nicobar
- 2. 74th Amendment Act (1992) is related to
  - (A) Function of the Kaveri water Authority
  - **(B)** The function of the state Finance commission. 7.
  - (C) Structure of the NITI aayog of India
  - (**D**) Nagarpalika
- 3. By which among the following amendments of the constitution, the territories of Goa, Daman and Diu were incorporated in the Indian constitution?
  - (A) 10th Constitution Amendment Act, 1961
  - (B) 12th Constitution Amendment Act, 1962
  - (C) 14th Constitution Amendment Act, 1962
  - **(D)** All of the above
- 4. The Partition of Bengal made by Lord Curzon in 1905 lasted until
  - (A) The Second World War
  - **(B)** King George V abrogated Curzon's Act at the Royal Durbar in Delhi in 1911
  - (C) Gandhiji launched his Quit India Movement
  - **(D)** the Partition of India in 1947

- (C) Zaskar and Pir Panjal
- (D) Dhauladhar and Zaskar
- 24. Which of the following river systems form the delta?
  - (A) Godavari, Narmada, Mahanadi
  - (B) Narmada, Kaveri, Mahanadi
  - (C) Godavari, Kaveri, Mahanadi
  - (D) Narmada, Krishna, Kaveri
  - The Asia's largest fresh water lake "Wular lake" is located in which state?
  - (A) Rajasthan
  - (B) Uttar Pradesh
  - (C) Punjab
  - (D) Jammu and Kashmir
  - Who is the second-highest rank for a law officer In India?
  - (A) Solicitor General
- (B) Attorney General
- (C) Advocate General
- (D) Law Minister
- Indian Constitution contains how many Parts?
  - (A) Twelve Parts
- **(B)** Twenty-two Parts
- (C) Eight Parts
- **(D)** Twenty-Four Parts
- Money bill can be introduced first in which house of Parliament?
- (A) Only in Lok Sabha
- (B) Only in Rajya Sabha
- (C) Both in Lok Sabha and Raiva Sabha
- (D) Either in Lok Sabha or in Rajya Sabha
- 8. By which constitution amendment the elected members of Delhi and Pondicherry Legislatures were included in the President's Electoral College?
  - (A) 42nd Constitution Amendments Act, 1976.
  - **(B)** 70th Constitution Amendments Act, 1992.
  - (C) 86th Constitution Amendment Act, 2002.
  - (**D**) 124th Constitution Amendments Act, 2019.
- 9. Which among the following is also known as chief law officer of Government of India?
  - (A) Chief Justice of India
  - **(B)** Comptroller and Auditor General
  - (C) Attorney General of India













- (D) Judge of Supreme Court of India
- 10. Lakshadweep's High Court is located in which state of India?
  - (A) Tamil Nadu
- (B) Kerala
- (C) Andhra Pradesh
- (D) Karnataka
- 11. Under the direct rule of the British Government. the first law for the rule of India was.
  - (A) Government of India Act, 1935
  - (B) Government of India Act, 1952
  - (C) Government of India Act, 1892
  - (D) Government of India Act, 1915
- 12. Under which article of the Constitution, can each state introduce the spread and instruction of the mother tongue in primary education?
  - (A) Article-349
- **(B)** Article -350
- (C) Article -350A
- **(D)** Article-351
- In which article of the Constitution, the 13. instructions for the development of Hindi language have been given?
  - (A) Article 330
- **(B)** Article -336
- (C) Article-343(1)
- **(D)** Article-351
- In which article of Indian Constitution, the state 14. government directs the organization of Gram Panchavat?
  - (A) Article-32
- (B) Article-40
- (C) Article -48
- **(D)** Article -78
- 15. President of India can dissolve the Lok Sabha under which Article of the Constitution?
  - (A) Article-85
- **(B)** Article-95
- (C) Article-356
- (D) Article-365
- Which of the following is associated with Article 16.
  - (A) Financial Emergency
  - **(B)** National emergency
  - **(C)** President's rule
  - (D) Constitution amendment
- Under which article is the work of the Union 17. Public Service Commission describe?
  - (A) Article 320
- **(B)** Article 322
- (C) Article 324
- **(D)** Article 325

- 18. On the basis of which article of the constitution does the President proclaim the financial emergency?
  - (A) Article-352
- (B) Article-356
- **(C)** Article -360
- (D) Article-355
- 19. Constitution of India was adopted by constituent assembly on?
  - (A) 25 January, 1950
  - **(B)** 25 October, 1949
  - (C) 26 November, 1950
  - **(D)** 26 November, 1949
- Under which article of the Constitution, Hindi has been given the status of official language?
  - (A) Article 243
- **(B)** Article 345
- (C) Article 346
- **(D)** Article 348
- In which article of Indian Constitution there is a 21. specific provision related to different states?
  - (A) Article-369
- **(B)** Article -370
- (C) Article -371
- **(D)** Article -372
- 22. How many parts were there in the original Indian constitution?
  - (A) 21
- **(B)** 22

(C) 23

- **(D)** 24
- In which Amendment act Sindhi language was 23. included as 15th regional language in the Eight Schedule?
  - (A) 1st Constitutional Amendment Act, 1956
  - **(B)** 7th Constitutional Amendment Act, 1956
  - (C) 15th Constitutional Amendment Act, 1963
  - (D) 21st Constitutional Amendment Act, 1967
- In which part did the provision of the formation of 24. Gram Panchayat?
  - (A) Part -4
- **(B)** Part -3
- **(C)** Part -2
- **(D)** Part -5
- What is the main function of the Nagar Panchayat? 25.
  - (A) Public road
  - **(B)** Cleaning of places and drains
  - (C) Illumination of lights
  - (D) All of the above



# **Economics**

1.	Who among the following suggested the 'Rolling Plan'?	9.	on which date in India?	panks day was celebrated
	(A) John W. Miller		(A) 15 July	( <b>B</b> ) 19 July
	(B) D. T. Lakdawala		(C) 24 July	<b>(D)</b> 29 July
	(C) Gunnar Myrdal	10	C :1 :	C 1'4 C 1 ' 1
	(D) Sukhmay Chakarborty	10.	one of the following-	ource of credit for which
2.	Why was 'Tendulkar Committee' constituted?		(A) Corporate Industry	(B) Small Industry
	(A) To measure unemployment		(C) Commercial Bank	(D) Foreign Bank
	<b>(B)</b> To measure growth rate			
	(C) To measure poverty	11.		g years was the first radio
	(D) To measure agricultural produce		program broadcast?	
			(A) 1911	<b>(B)</b> 1927
3.	Who recently launched 'Jan Dhan Darshak' Mobile App?		(C) 1936	<b>(D)</b> 1923
	(A) Narendra Modi (B) Ramnath Kovind	12.	Economics is the scien	nce of human activities
	(C) Rajnath Singh (D) Arun Jaitley	K	considered as an Endeav wantlessness.	our to reach the stage of
4.	Which state has the highest average per capita		(A) J.K. Mehta	(B) Adam Smith
	income in India?		(C) Marshall	(D) Samuelson
	(A) Kerala (B) Maharashtra			
	(C) Goa (D) Rajasthan	13.		ing is the method of
			calculating national inco	
5.	Which state has the lowest average per capita		(A) Production calculation	
	income in India?		(B) Income calculation r	
	(A) Chhattisgarh (B) Bihar		(C) Expenditure calculat	tion method
	(C) Uttar Pradesh (D) Odisha		<b>(D)</b> All of the above	
6.	When was the first economic census done in India	14.	In which of the fol	lowing years was the
	by Central Statistical Organization?		Antyodaya Anna Yojana	
	(A) 1942 (B) 1977		(A) 2000	<b>(B)</b> 2005
	<b>(C)</b> 1991 <b>(D)</b> 2013		(C) 2010	<b>(D)</b> 2015
7.	The biggest feature of the economy	15.	Which fibre is called the	'Golden Fibre'?
	is that private and public sector work together in		(A) Cotton	(B) Jute
	this kind of economy?		(C) Rayon	(D) Wool
	(A) Mixed (B) Socialist		•	` ,
	(C) Capitalist (D) All of the above	16.	Which of the following	g banks has the largest
			branch in India?	
8.	By which constitution amendment act		` '	nd Shanghai Banking
	Economically Weaker Sections among General		Corporation.	
	Category candidates in government jobs and		<b>(B)</b> City Bank.	
	educational institutions get 10% reservation?		(C) Standard chartered b	ank.
	(A) 103rd Constitution Amendment Act, 2019		(D) Deutsche Bank.	
	(B) 130th Constitution Amendment Act, 2019	15	T 1.1D0.1 .	11 4 1 0
	(C) 113th Constitution Amendment Act, 2019	17.	International AIDS day i	
	( <b>D</b> ) 132th Constitution Amendment Act, 2019		(A) 1st December	(B) 1st November









18.	Name the 29th state o (A) Uttarakhand (C) Telangana	f India formed in 2014.  (B) Chhattisgarh  (D) Odisha	22	<ul><li>(B) Small (micro) and n</li><li>(C) Weaker section</li><li>(D) All of the above</li></ul>	·
19.	What is the currency (A) Dinar (C) Dollar	of China?  (B) Yuan Renminbi  (D) Pound	23.	following? (A) Cotton clothes (B) Petroleum (C) Agricultural sector	e is related to which of the
20.	<ul><li>(A) Persian R and Ron</li><li>(B) Roman R and Pour</li></ul>	nd	24.	( <b>D</b> ) Public distribution s  In which year Special 1	Economic Zones Act was
21.	(C) Devanagiri Ra and (D) Devanagiri Ra and Santiago is the capital	d Roman R		passed by the Parliamen (A) 2005 (C) 2014	(B) 2009 (D) 2019
	(A) Congo (C) Croatia	(B) Cuba (D) Chile	25.	When was the Broad Council of India Establi (A) 2005	cast Audience Research shed? (B) 2010
22.	Which is the primary India? (A) Agricultural secto		sics	(C) 2015	<b>(D)</b> 2018
1.	The thickness of the o (A) Dobson (C) Bar	zone layer is measured? (B) Barrel (D) Decibel	6.	(D) Sound turns into lig A solar panel is in kep absorbs more  (A) Heat	th the in vacuum of black surface so that it
2.	Nuclear reactor is a di (A) K. Onnes (C) Fermi	scovered by (B) H. Devi (D) L. D Forest	7.	(C) Air  The Laser is a beam of a (A) Non-coherent and n	(D) Oxygen radiations which are-
3.	Which of the followir energy in to electrical (A) Battery (C) Solar Cell	g device converts chemical energy?  (B) Loud Speaker  (D) Electric Motor		(B) Coherent and non-m (C) Non-coherent and n (D) Coherent and mono	nonoch <mark>ro</mark> matic nonochromatic chromatic
4.	sightedness) defect? (A) Concave Lens (B) Convex Lens	o correct the Myopia (Near	8.	(A) To avoid any kind of (B) To prevent from Cu (C) To stop short circuit (D) All of the above	rrent
_	(C) Bipolar Lens (D) None of the above		9.	pieces stick together, be	
5.	·			ice decreases.	re the melting point of ice









- (C) If the pressure is high, the melting point of the ice decreases first and then increases.
- (D) There is no connection between pressure and melting point.
- **10.** What is a Noisy Intermediate Scale Quantum (NISQ) technology?
  - (A) A technology where a computer injects a noise in large scale for running algorithms for quantitative comparison
  - **(B)** A technology of the future where quantum computers with 50 to 100 qubits that perform tasks 17. exceeding those of today's digital computers
  - (C) A technology in use in National Institute of Standard and Quality computer
  - **(D)** A technology for suppressing electromagnetic interference from all sources
- What is the goal of LOON project of Google X 18. 11. an R&D facility founded by Google?
  - (A) Expanding coverage of Internet connectivity with stratospheric balloons
  - **(B)** To create kites that harness wind energy to generate electricity efficiently from wind
  - (C) An autonomous delivery drone service aiming to increase access to goods, reduce traffic congestion in cities, and help ease the CO2 emissions
  - (D) Transforming mobility with self-driving cars
- **12.** A popular form of activity for businesses and individuals to increase hits on their websites is SEO. What is the full form of SEO?
  - (A) Search Engine Optimization
  - **(B)** Security Embedded in Organization
  - (C) Search Embedded Optimization
  - (**D**) Site Engine Optimization
- What is the unit of Magnetic flux density? 13.
  - (A) Tesla
- **(B)** Weber
- (C) Farad
- (D) None of these
- Name the physicist awarded Nobel Prize for 22. Quantum Theory in 1918?
  - (A) Albert Einstein
- (B) Niels Bohr
- (C) Max Planck
- **(D)** Burry
- Communication satellites are used to: 15.
  - (A) To transmit communication signals
  - (B) To receive and redirect communication signals
  - (C) To only receive the communication signal

- **(D)** To provide information on national sources only
- **16.** Kinetics is the study of-
  - (A) The rate of chemical reaction
  - **(B)** How fast the reactions go
  - (C) The mechanisms and paths of the molecules take injoining from one reactant to products
  - **(D)** All of these are correct
- J. J. Thomson's proposed model of action is generally called ..... model.
  - (A) Cream and cake
  - **(B)** Plum and pudding
  - (C) Plum and cake
  - (D) Cream and pudding
- When a motor boat in a sea travels faster than sound then waves just like shock- waves are produced on the surface of water. These waves are called -
  - (A) Bow Waves
  - **(B)** Constructive waves
  - (C) Destructive waves
  - **(D)** All of the above
- 19. If Mach number is greater than 1 then the body (source) is said to be moving with –
  - (A) Hypersonic
- (B) Subsonic
- (C) Supersonic
- **(D)** None of these
- 20. If Mach number is greater than 5 then the body (source) is said to be moving with –
  - (A) Hypersonic
- (B) Subsonic
- (C) Supersonic
- **(D)** None of these
- If Mach number is less than 1 then the body 21. (source) is said to be moving with –
  - (A) Hypersonic
- (B) Subsonic
- (C) Supersonic
- **(D)** None of these
- A body moving with supersonic speed in air leaves behind it a conical region of disturbance which spreads continuously. Such a disturbance is called
  - (A) Infrasonic wave
- (B) Electric wave
- (C) Sonic wave
- **(D)** Shock wave
- 23. It is difficult to walk on ice than on road because.
  - (A) Ice is harder than road











24.

1.

2.

3.

4.

5.

6.

7.

(A) Chlorine

(C) Carbon

atomic reactor?

(C) Graphite

following?

(A) Picric Acid

(C) Acetic Acid

'Muriatic Acid'?

(C) Formic Acid

(A) Sulfurous Acid

(A) Organic fertilizer

(C) Toxic Substance

What is a Vermicomposting?

(A) Phosphorous

found in most fertilizers?

(A) Sodium, Potassium, Phosphorus

(C) Nitrogen, Potassium, Phosphorus

(B) Sodium, Potassium, Calcium

(D) Nitrogen, Potassium, Calcium

**(B)** Road is harder than ice (C) Ice does not offer any reaction, when we push it, with our foot (D) Ice has a lesser friction than road Which of the following is the slowest process of heat transfer? (A) Conduction (B) Convection (C) Radiation **(D)** Insolation **Chemistry** Who gives the modern classification of periodic 8. table? (A) Rutherford (B) D.I. Mendeleev (C) Moseley (D) Bronsted and Lowry Which element in the periodic table is les atomic number than Sulphur?

Which of the following elements are commonly

Which of the following is used as moderator in 12.

'Oil of vitriol' is the common name of which of the 13.

Which among the following acid is also known as

**(B)** Thorium

(D) Magnesium

(B) Citric Acid

(B) Oxalic Acid

(D) Type of soil

(D) Hydrochloric acid

**(B)** Inorganic fertilizer

(D) Sulphuric Acid

(B) Aluminum

(D) Magnesium

Which one of the following gas is not found in the atmosphere? (A) Argon **(B)** Krypton (C) Radon (D) Xenon Which one of the following is not a mixture? (A) Graphite (B) Glass (C) Brass (D) Steel The metal compound commonly found in Sindhoor or kumkum is based on-(A) Tin (B) Lead (C) Copper (D) Zinc Which one of the following metals is less reactive than hydrogen? (A) Barium (B) Copper (C) Lead **(D)** Magnesium The bonds formed by the partnership between the electrons couples between the atoms are called -(A) Ionic bond **(B)** Covalent bond (C) Co-ordinate bond **(D)** None of the above The substance made with Iron is protected from rusting by galvanization. The protecting metal used is (A) Silver (B) Copper (D) Nickel (C) Zinc Which among the following is known as Quick Lime? (A) CaO (B) CaCO2

**(D)** CaCl2

(B) Lithium

Which one of the following elements exhibits the

greatest tendency to lose electrons?

Why does the bottom of a lake not freeze in severe

**(D)** The temperature of the earth at the bottom of

winter even when the surface is all frozen?

**(B)** The conductivity of ice is low (C) Because of sublimation of water

the lake is high

(A) The fish increases the temp of lake water











14.

15.

25.

9.

10.

11.

(C) Ca(OH)2

(A) Fluorine

of vegetables and oth constituent of vinegar?  (A) Methanoic acid  (C) Ethanoic acid  Which one among the fofor making bullet-proof of the constituent of the constit	<ul><li>(B) Polyvinyl siloxane</li><li>(D) Polyamide</li><li>te following substances</li></ul>	<ul><li>21.</li><li>22.</li><li>23.</li></ul>	An ideal fuel should hav (A) High calorific value (B) Low ignition temper (C) Regulated and contr (D) All of the above  The number of electrons (A) Zero (C) Two	rature olled
of vegetables and oth constituent of vinegar?  (A) Methanoic acid (C) Ethanoic acid  Which one among the formaking bullet-proof of the constituent	(B) Tartric acid (D) Hexanoic acid  bllowing polymers is used material? (B) Polyvinyl siloxane (D) Polyamide  the following substances	22.	<ul> <li>(A) High calorific value</li> <li>(B) Low ignition temper</li> <li>(C) Regulated and contr</li> <li>(D) All of the above</li> <li>The number of electrons</li> <li>(A) Zero</li> <li>(C) Two</li> </ul>	rature olled spresents in H+ is  (B) One
Which one among the formaking bullet-proof of (A) Polyethylene (C) Poly toluene  Which one among the evolved heat when disso (A) Lactic acid	ollowing polymers is used material?  (B) Polyvinyl siloxane (D) Polyamide  te following substances		(A) Zero (C) Two	(B) One
for making bullet-proof of (A) Polyethylene (C) Poly toluene  Which one among the evolved heat when disso (A) Lactic acid	material? (B) Polyvinyl siloxane (D) Polyamide  te following substances		(A) Zero (C) Two	(B) One
Which one among the evolved heat when disso (A) Lactic acid	e following substances	23.		
evolved heat when disso (A) Lactic acid			Which of the following (A) Iodine	(B) Radium
(A) Lactic acid	TV CU III VV AUCI :		(C) Chromium	(D) Lithium
(C) Quick mile	(B) Fructose (D) Salt peter	24.	elements; the element	de up of several chemical present in the highest
and volume of a given an			(A) Carbon	(B) Hydrogen (D) Nitrogen
(A) Gay-Lussac law (C) Boyle's law	<ul><li>(B) Charles's law</li><li>(D) Pressure law</li></ul>	25.	Which of the follows	ing is the ore of the
Which of the following 6 (A) Aluminium (C) Calcium	element is NOT a metal? (B) Phosphorous (D) Potassium		(A) Chromite (C) Celomeleine	<ul><li>(B) Pyrolusite</li><li>(D) All of the above</li></ul>
	Bio	logy		
Which of the following i Xerophthalmia? (A) Protein (C) Vitamin K acids	<ul><li>(B) Vitamin A</li><li>(D) Unsaturated fatty</li></ul>	5.	How many bones of adu (A) 204 bones (C) 208 bones	alt human skeleton? (B) 206 bones (D) 300 bones
	g is not a part of the	6.	consciousness if blood	human will lose their will stop flowing to the
(A) Small Intestine (C) Pharynx	<ul><li>(B) Rectum</li><li>(D) Spleen</li></ul>		(A) 2 sec (C) 20 sec	(B) 5 sec (D) 5 min
located in India?		7.	water causes "Blue Baby	
(A) Delhi (C) Chennai	(B) Ranchi (D) Lucknow		<ul><li>(A) Sulphates</li><li>(C) Carbonates</li></ul>	<ul><li>(B) Chlorides</li><li>(D) Nitrates</li></ul>
against bacteria? (A) Hemoglobin	(B) Phagocytes	8.	What is the reason that can be given blood to all <b>(A)</b> There are no antigen <b>(B)</b> There is only one an	is in it
	and volume of a given ar This is  (A) Gay-Lussac law (C) Boyle's law  Which of the following of (A) Aluminium (C) Calcium  Which of the following of Xerophthalmia? (A) Protein (C) Vitamin K acids  Which of the following digestive system? (A) Small Intestine (C) Pharynx  Where is the Central located in India? (A) Delhi (C) Chennai  Which of the following of against bacteria? (A) Hemoglobin	(A) Gay-Lussac law (C) Boyle's law (D) Pressure law  Which of the following element is NOT a metal? (A) Aluminium (B) Phosphorous (C) Calcium (D) Potassium  Bio  Which of the following is a chronic disease of the Xerophthalmia? (A) Protein (B) Vitamin A (C) Vitamin K (D) Unsaturated fatty acids  Which of the following is not a part of the digestive system? (A) Small Intestine (B) Rectum (C) Pharynx (D) Spleen  Where is the Central Drug Research Institute located in India? (A) Delhi (B) Ranchi (C) Chennai (C) Chennai (D) Lucknow  Which of the following defense of the human body against bacteria? (A) Hemoglobin (B) Phagocytes	and volume of a given amount of a gas is constant.  This is  (A) Gay-Lussac law (C) Boyle's law (D) Pressure law 25.  Which of the following element is NOT a metal? (A) Aluminium (B) Phosphorous (C) Calcium (D) Potassium  Biology  Which of the following is a chronic disease of the Xerophthalmia? (A) Protein (B) Vitamin A (C) Vitamin K (D) Unsaturated fatty acids  6.  Which of the following is not a part of the digestive system? (A) Small Intestine (B) Rectum (C) Pharynx (D) Spleen  Where is the Central Drug Research Institute 7. located in India? (A) Delhi (B) Ranchi (C) Chennai (B) Ranchi (C) Chennai (C) Chennai (D) Lucknow  Which of the following defense of the human body against bacteria?	and volume of a given amount of a gas is constant. This is  (A) Gay-Lussac law (B) Charles's law (C) Boyle's law (D) Pressure law (E) Chromium? (E) Chromium? (E) Chromite (C) Calcium (D) Potassium  Biology  Which of the following is a chronic disease of the Xerophthalmia? (E) Vitamin K (D) Unsaturated fatty acids  Which of the following is not a part of the digestive system? (A) Small Intestine (B) Rectum (C) Pharynx (D) Spleen  Where is the Central Drug Research Institute located in India? (A) Delhi (B) Ranchi (C) Carbon (C) Carbon (C) Carbon (C) Carbon (C) Celomeleine  How many bones of adu (A) 204 bones (C) 208 bones (C) 208 bones (C) 208 bones (C) 208 consciousness if blood brain? (A) 2 sec (C) 20 sec  Presence of which amo water causes "Blue Baby (A) Sulphates (C) Carbonates  Which of the following defense of the human body against bacteria? (A) Hemoglobin (B) Phagocytes  (C) Carbon (A) There are no antiger











- **(C)** There are no antibodies in it
- **(D)** It contains both antibody and antigen.
- 9. At the time of diastole condition-
  - (A) Blood goes out of the heart.
  - **(B)** The blood enters the ventricle.
  - (C) Blood arrives at the heart.
  - **(D)** Blood is out of the atrium.
- 10 Which action of the human body is similar to the digestive tract?
  - (A) Glycogen fragmentation in glucose
  - **(B)** Fatty acid change in fat
  - (C) Amino acids changes in Protein
  - (D) lactose breakdown in glucose and galactose
- 11. From whom is Antibiotic Teramysin Received?
  - (A) Bacillus subtilis
  - (B) Bacillus Polimaija
  - (C) Straptomaisin Raimoss
  - **(D)** Traponema palladium
- 12. Moon jelly related with which phylum?
  - (A) Phylum Platyhelminthes
  - **(B)** Phylum Annelida
  - (C) phylum Porifera
  - (D) Phylum Coelenterata
- H1N1 virus is often referred to in the context of 13. which disease?
  - (A) AIDS
- **(B)** Bird flu
- (C) Dengue
- (D) Swine flu
- A disease which, after a short period of time, 14. destroys crops in a wide area, it is called-
  - (A) Endemic
- **(B)** Epiphytotic
- (C) Extensive
- (D) Sporadic
- 15. Which of the following diseases is caused by bacteria?
  - (A) AIDS
- (B) Influenza
- (C) Jaundice
- (D) Small pox
- **16.** Which of the following is NOT a function of kidnevs?
  - (A) Regulation of acidity of body fluids
  - (B) Removal of urine
  - (C) Produciton of antibiotics

- **(D)** Regulation of blood pressure
- 17. What are Lipids?
  - (A) Lipids are monosaccharide
  - **(B)** Lipids do not provide energy to cells
  - (C) Fruits are a good source of lipids
  - **(D)** Cholesterol and Trans fatty acids are types of Lipids
- 18. Which of the following is known as animal starch?
  - (A) Glycogen
- **(B)** Cellulose
- (C) Glucose
- (D) Chitin
- 19. The parts of the human body affected by Pyorrhea are:
  - (A) Eyes
- **(B)** Small intestine
- (C) Teeth and gums
- (D) Large intestine
- 20. Which of the following is thyroid gland disorder?
  - (A) Cretinism
- **(B)** Myxoedema
- (C) Grave disease
- **(D)** All of the above
- 21. Saxually transmitted disease is-
  - (A) Leukemia
- **(B)** Gonorrhoea
- (C) Colour blindness
- (**D**) Astigmatism
- 22. Primarily, which one of the following systems of the body is attacked by the HIV?
  - (A) Cardiovascular
- **(B)** Immune
- (C) Respiratory
- (D) Reproductive
- 23. Which one of the following is the richest source of Vitamin C?
  - (A) Guava
- (B) Pineapple
- (C) Orange
- **(D)** Tomato
- 24. In the human body, the blood enters the aorta of the circulatory system from the-
  - (A) Left atrium
- **(B)** Left ventricle
- (C) Right atrium
- (C) Right ventricle
- Lifesaving hormone is secreted by which gland?
  - (A) Adrenal gland
  - **(B)** Hypothalamus gland
  - (C) Pituitary gland
  - (D) Thyroid gland













# **Answer key**

**Statement Based Current Affairs** 

1-(C)	2-(A)	3-(D)	4-(A)	5-(A)
6-(B)	7-(C)	8-(D)	9-(B)	10-(B)
11-(B)	12-(A)	13-(A)	14-(D)	15-(C)
16-(C)	17-(D)	18-(A)	19-(B)	20-(B)
21-(C)	22-(C)	23-(A)	24-(C)	25-(C)

Polity
--------

1-(C)	2-(D)	3-(B)	4-(B)	5-(A)
6-(B)	7-(A)	8-(B)	9-(C)	10-(B)
11-(D)	12-(C)	13-(C)	14-(B)	15-(A)
16-(C)	17-(A)	18-(C)	19-(D)	20-(C)
21-(C)	22-(B)	23-(D)	24-(A)	25-(D)

**Statement Based General Awareness** 

1-(C)	2-(C)	3-(B)	4-(B)	5-(A)
6-(B)	7-(C)	8-(C)	9-(A)	10-(C)
11-(A)	12-(B)	13-(C)	14-(B)	15-(C)
16-(B)	17-(B)	18-(C)	19-(C)	20-(C)
21-(C)	22-(C)	23-(D)	24-(D)	25-(B)

100	
	omics

1-(C)	2-(C)	3-(D)	4-(C)	5-(B)	
6-(B)	7-(D)	8-(A)	9-(B)	10-(A)	
11-(D)	12-(A)	13-(A)	14-(A)	15-(B)	
16-(B)	17-(A)	18-(C)	19-(B)	20-(D)	
21-(D)	22-(B)	23-(B)	24-(A)	25-(B)	

**Current Affairs** 

			"	
1-(A)	2-(E)	3-(A)	4-(C)	5-(B)
6-(D)	7-(A)	8-(A)	9-(C)	10-(D)
11-(B)	12-(C)	13-(A)	14-(D)	15-(E)
16-(B)	17-(A)	18-(C)	19-(A)	20-(A)
21-(E)	22-(B)	23-(A)	24-(D)	25-(B)

**Physics** 

		J		
1-(A)	2-(C)	3-(A)	4-(A)	5-(B)
6-(A)	7-(D)	8-(D)	9-(A)	10-(B)
11-(A)	12-(A)	13-(A)	14-(C)	15-(B)
16-(A)	17-(B)	18-(A)	19-(C)	20-(A)
21-(B)	22-(D)	23-(D)	24-(A)	25-(A)

History

1-(A)	2- (B)	3- (B)	4- (C)	5- (B)
6- (D)	7- (B)	8- (B)	9- (D)	10- (C)
11- (A)	12- (A)	13- (A)	14- (A)	15- (A)
16- (A)	17- (A)	18- (A)	19- (C)	20- (A)
21- (B)	22- (B)	23-(B)	24-(C)	25- (D)

Chemistry

1-(B)	2-(C)	3-(C)	4-(C)	5-(D)
6-(D)	7-(A)	8-(C)	9-(A)	10-(B)
11-(B)	12-(A)	13-(C)	14-(A)	15-(B)
16-(C)	17-(A)	18-(C)	19-(C)	20-(B)
21-(C)	22-(A)	23-(B)	24-(C)	25-(A)

Geography

1-(B)	2-(A)	3-(D	4-(A)	5(C)
6-(A)	7-(D)	8-(A)	9-(D)	10-(B)
11-(B)	12-(C)	13-(D)	14-(A)	15-(B)
16-(C)	17-(C)	18-(D)	19-(A)	20-(A)
21-(A)	22-(D)	23-(C)	24-(C)	25-(D)

**Biology** 

1-(B)	2-(D)	3-(D)	4-(B)	5-(B)
6-(B)	7-(D)	8-(A)	9-(C)	10-(A)
11-(C)	12-(D)	13-(D)	14-(B)	15-(C)
16-(D)	17-(A)	18-(A)	19-(C)	20-(D)
21-(B)	22-(B)	23-(D)	24-(B)	25-(A)

"Leaders Concentrate Single-Mindedly On One Thing- The Most **Important Thing, And They Stay** At It Until It's Complete."

"Leaders Are Innovative, Entrepreneurial, And Future-**Oriented. They Focus On Getting** The Job Done."











# **IBPS PO Prelims Solved Paper**

# **English Language**

Directions (1-5): In the following passage, some of the words have been left out and replaced by a blank represented by a letter. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

> Fifty-five years ago, on March 16, 1966, the Gemini VIII astronauts made the world's first space docking, quickly (A) by the first life-threatening, in-flight emergency in the short history of the U.S. human spaceflight program. Gemini VIII, joined to its Agena target vehicle, began spinning and gyrating; when the astronauts undocked, Gemini's rotation (B) to the point where the crew could black out and die. Neil Armstrong led the mission, which was to demonstrate space docking, a (C) essential to the Apollo lunar landing program. Forty months later, he would become the first human to set foot on the Moon as commander of Apollo 11. His Gemini crewmate was David Scott, who would be the command module pilot of Apollo 9 and the commander of Apollo 15, the first lunar landing to carry a roving vehicle. Their cool (D) of the Gemini VIII crisis (E) their leading roles in the Apollo program.

- (A) allowed 1.
  - **(B)** followed **(C)** prevented (D) pervaded
  - **(E)** hinted
- (A) decided 2.
  - **(B)** applied (C) accessed (D) accelerated
  - (E) considered
- 3. (A) commotion
- **(B)** felony (C) technique (D) commitment
  - (E) agony
- 4. (A) handling
  - (C) yielding
  - (E) appeasing
- 5. (A) faded
- (B) aided

**(B)** implying

(D) hampering

- (C) announced
- (D) executed
- (E) ensured

In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

Many of the structures built by society the natural coastal processes and consequently result in erosion and deposition.

- 1. Disrupt
- 2. Hamper 4. Demean
- 3. Hoist
- **(B)** 1 and 3
- **(A)** 1 and 2 **(C)** 1 and 4
- **(D)** 2 and 4
- (E) All fit

In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

Confidence in the strength of their ideas will give people the to stand up to the threats and intimidation.

- 1. Hindrance
- 2. Courage
- 3. Spine **(A)** 1 and 2
- 4. Catastrophe **(B)** 1 and 4
- **(C)** 2 and 3
- **(D)** 3 and 4
- **(E)** All fit

In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

If the Government refuses to introduce changes now, it will be demonstrating its democracy, public concern and animal welfare.

- 1. Contempt
- 2. Disregard
- 3. Apathy
- 4. Illusion
- **(A)** 1 and 2 **(C)** 2 and 3
- **(B)** 1 and 3 **(D)** 3 and 4
- **(E)** All fit
- In the question below, a sentence is given with a part missing. From the options, choose the

9.

8.



	correct. He led an attack on Harper's Ferry, Virgi	the sentence to make it the federal armory at inia, in an attempt to nong the area's enslaved  (B) instigate (D) induce	14.	of the sentence in the c the correct option. a less healthy reputati historically contained	(B) premises (D) protections  elow, rearrange the parts correct order, and choose ion (A)/ because it has (B)/ peanut butter has a palm oil, sugar and salt
10.	a part missing. From word that will fit in correct.	a sentence is given with the options, choose the the sentence to make it a pluralistic, egalitarian and women of all (B) abated (D) awaited	15.	(D) (A) ACBD (C) CABD (E) No rearrangement r  In the question given be of the sentence in the c the correct option. and benefiting from the minerals, (A)/ might r	(B) BADC (D) DCBA
11.	a part missing. From word that will fit in tocorrect.  Smith and the Rad believed that white	a sentence is given with the options, choose the the sentence to make it ical Abolitionist Party Americans needed to rican perspectives.  (B) claim  (D) reject	16.	eating a range of differ people who eat peanut be (A) ADCB (C) CADB (E) No rearrangement rule. In the question given be of the sentence in the cothe correct option.  at a national level, greater the correct option of the sentence in the cothe correct option.	erent nuts (C)/ whereas butter (D) (B) BCAD (D) DABC required elow, rearrange the parts correct order, and choose the finance programmes
12.	a part missing. From word that will fit in a correct.  One of his lifelong into people the unrecognized	ed influence of Africans in the advancement of	17.	decisions (B)/ as we financial stability (C)/ a fair outcomes and susta (A) ADCB (C) CDAB (E) No rearrangement r  In the question below divided into five parts (E). One of the parts is or has an error in it	( <b>B</b> ) BADC ( <b>D</b> ) DCBA
13.	a part missing. From word that will fit in correct.  Thousands of the rioter	a sentence is given with the options, choose the the sentence to make it rs, the majority of whom children, entered the		and choose the option a Fish is an essential par	accordingly.  It (A)/ of the diet for all dering the (C)/ Mekong









18. In the question below, a sentence is given, divided into five parts (A), (B), (C), (D) and (E). One of the parts is grammatically incorrect or has an error in it. You are required to identify the parts that are grammatically correct and choose the option accordingly.

He said that employees (A)/ are to be reposition 21. (B)/ within the company (C)/ and hopefully there will (D)/ be no retrenchments. (E)

- (A) ABCD
- (B) ACDE
- (C) ABDE
- **(D)** ABCE
- (E) No error
- **Directions** (19-23): Given below is a set of six 22. statements, out of which only the last statement given in bold is fixed, and the rest are jumbled in any random order. Rearrange the remaining statements in the right order and answer the questions.
  - conservationists P. Local also suspect 23. electrofishing accidentally killed at least two dolphins last year.
  - Q. This increasingly ubiquitous but illegal practice is disrupting the food source for the atrisk river dolphins.
  - relatively recent practice water through metal rods or conductive nets\_ that are connected to car batteries, stunning fish in groups and making for an easy haul.
  - S. Fish are becoming harder to find all over the Irrawaddy River, in part because electrofishing gangs are rapidly depleting the already strained stocks of more than 40 local species.
  - T. Every loss is keenly felt: The International Union for the Conservation of Nature lists the Irrawaddy dolphin as vulnerable.
  - U. And with fewer dolphins chasing fewer fish, the centuries-old cooperative relationship between humans and dolphins is also facing extinction.
- 19. Given that U is the last statement, which of the following would be the FIRST statement after rearrangement?
  - (A) Q
- **(B)** R
- (C) P
- **(D)** S
- **(E)** T

- 20. Given that U is the last statement, which of the following would be the SECOND statement after rearrangement?
  - (A) S

**(B)** R

- (C) P
- **(D)** Q
- **(E)** T
- Given that U is the last statement, which of the following would be the THIRD statement after rearrangement?
  - (A) Q
- **(B)** P
- **(C)** R
- **(D)** S

- **(E)** T
- Given that U is the last statement, which of the following would be the FOURTH statement after rearrangement?
  - (A) R
- **(B)** Q
- (C) P
- **(D)** S
- **(E)** T
- Given that U is the last statement, which of the following would be the FIFTH statement after rearrangement?
  - (A) R
- (B) T
- (C) P
- **(D)** S
- **(E)** Q

electrofishing sends electric currents into the **Directions** (24-30): Read the following passage carefully and answer the questions.

> Deep in the Australian Outback, the locals will tell you, a legendary beast roams the bush, preying on the unprepared and the unawares. This mythical creature, the drop bear, is a ravenous variant of the koala that has developed a taste for flesh rather than leaves. And while the drop bear itself doesn't exist, it does have a real-life counterpart in a predatory marsupial of the past.

Over 46,000 years ago, Australia was home to Thylacoleo, a distant cousin of wombats, kangaroos and other marsupials.

But unique among this subclass of mammals, Thylacoleo preyed on other animals for its food, and so paleontologists know the ancient creature as the "marsupial lion." But why doesn't this impressive carnivore still prowl the Australian wilds? A new analysis of the predator's teeth, carried out by Vanderbilt University paleontologist Larisa DeSantis and









presented at the Society of Vertebrate Paleontology annual meeting last month, offers some new clues.

Despite being known to scientists since 1859 and having various studies of its anatomy carried out, relatively little is known about how this predator hunted, ate its prey and otherwise interacted with its surrounding environment. It turns out, the marsupial lion's teeth were key to solving some of these mysteries. The cheek teeth of Thylacoleo are very distinctive. They are more square than triangular, having the appearance of meat cleavers that slid past each other to shear through flesh. Pits and scratches on the teeth, called microwear, are tied to different foods and feeding behaviors that can help narrow down the animal's diet.

It turns out that Thylacoleo lived up to its name. The microwear on the analyzed fossil teeth showed damage patterns most similar to 24. modern-day lions. Translating this to diet, it means that Thylacoleo didn't avoid chewing on bone as assiduously as cheetahs do, but it wasn't a bone-crusher like the spotted hyena. Thylacoleo came out somewhere in between, mostly preferring to feed on flesh but sometimes chewing on—or through—the bones of its prey. Based upon the isotope data and other lines of evidence, such as where Thylacoleo bones have been found with other fossils, scientists hypothesize that this carnivore 25. was an ambush predator that preferred relatively wooded environments, offering plenty of cover. In the old forests of Australia, Thylacoleo could stalk ancient, giant kangaroos like Protemnodon.

The trouble for the predator all started when climate change altered the local habitat. What drove some of Australia's megafauna to extinction is a fiercely-debated question (just as 26. it is with Ice Age extinctions elsewhere around the world). Some experts place the blame on newly-arrived humans, who hunted and used fire to clear the landscape, killing off many large and iconic species. Others point to climate change, noting dramatic shifts that, in this case, made Australia much more arid and denuded forests that many species relied upon.

If the researchers are correct that Thylacoleo relied on the forest for cover to stalk its prey, then the desertification of Australia would have

stripped away the marsupial lion's cover, leading to its demise. Given what we now know about the diet of Thylacoleo and its preferred habitat, harsh climate shifts made all the difference for this carnivore. It was an ambush hunter, it was eating prey from these forests, it's postcranial anatomy indicates its pouncing from trees or some sort of cover and the loss of forest cover would have directly affected this carnivore's ability to pounce upon its preferred prey, not to mention that there would be less prey to stalk in these environments. The tale of this lost predator may have lessons for today, as dramatic climate shifts driven by humans continue to alter habitats around the world. Thylacoleo, the real drop bear of history, likely won't be the last apex hunter to fall along with its environment.

- As per the passage, which of the following findings was made by analysing the microwear on the fossil teeth of the Thylacoleo?
  - (A) Thylacoleo could grind bones along with the flesh of its prey.
  - **(B)** Thylacoleo ate flesh but could chew through the bones of its prey.
  - **(C)** Thylacoleo was a herbivore.
  - **(D)** Thylacoleo was a scavenger.
  - (E) Thylacoleo could only eat flesh of animals.
- Which of the following affected the Thylacoleo's hunting ability, causing it to go extinct?
  - (A) Loss of forest cover
  - **(B)** Fewer prey animals
  - (C) Contaminated water bodies
  - **(D)** Both (A) and (B)
  - **(E)** All (A), (B) and (C)
- Why was the Thylacoleo known as the "marsupial lion"?
  - (A) It lived in grasslands.
  - **(B)** It could climb trees.
  - **(C)** It lived in herds, but hunted solitarily.
  - **(D)** It mated twice a year.
  - (E) It preyed on other animals for its food.
- 27. Which of the following facts about the Thylacoleo was concluded based on isotope data?









- (A) The Thylacoleo was hunted by bigger predators.
- **(B)** The Thylacoleo competed with other predators for prey.
- **(C)** The Thylacoleo preferred to live near water bodies.
- **(D)** The Thylacoleo preferred wooded environments.
- **(E)** None of the above
- 28. Which of the following statements about the Thylacoleo is/ are true as per the passage?
  - 1. The Thylacoleo preyed on giant kangaroos.
  - 2. The Thylacoleo could run faster than the cheetah.
  - 3. The Thylacoleo had square shaped cheek teeth.
  - (A) Only 2
- **(B)** Only 1 and 2
- **(C)** Only 1 and 3
- **(D)** Only 2 and 3
- **(E)** All 1, 2 and 3
- 29. Which of the following is closest in meaning to the word 'indicates' as used in the passage?
  - (A) employs
- (B) suggests
- (C) narrates
- (D) persuades
- (E) disrupts
- 30. Which of the following is opposite in meaning to the word 'unique' as used in the passage?
  - (A) distinct
- **(B)** furious
- (C) amusing
- (D) usual
- (E) genuine

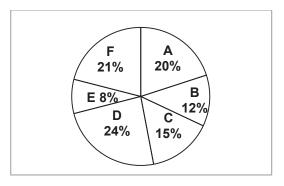
# Quantitative Aptitude

Directions (31-35): Answer the questions based on the information given below.

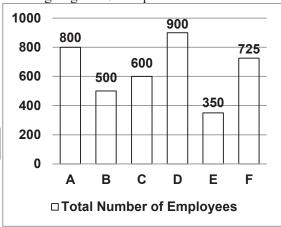
> The pie chart given below shows the percentage distribution of the number of permanent employees in each company out of total number of permanent employees in 6 different companies together.

Note: Total number of permanent employees in 6 companies together = 2500

"Success is not final; failure is not fatal: It is the courage to continue that counts."



The bar graph given below shows the total number of employees (permanent + temporary) working in given 6 companies.



Find the ratio of the number of permanent employees in company 'D' to the number of temporary employees in company 'E'.

(A) 5:2

31.

32.

33.

- **(B)** 4:1
- **(C)** 3:1
- **(D)** 3:2
- **(E)** None of these

What is the difference between the number of temporary employees in company 'A' and company 'B'?

- **(A)** 100
- **(B)** 150
- **(C)** 80
- **(D)** 120
- **(E)** None of these

The difference between the number of permanent and temporary employees in company 'C' is how much percent of the total number of employees in same company?

- **(A)** 20%
- **(B)** 25%
- **(C)** 15%
- **(D)** 32%
- (E) None of these





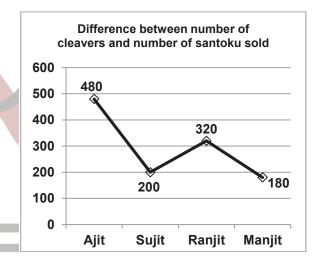




- 34. What is the average of total number of employees in companies 'B', 'E' and 'F' together?
  - (A) 525
- **(B)** 450
- **(C)** 500
- **(D)** 625
- (E) None of these
- 35. If the ratio of the number of male to female employees who are permanent in company E is 3:2 and total number of female employees is 200, then find the number of male employees who are temporary.
  - **(A)** 20
- **(B)** 50
- **(C)** 30
- **(D)** 80
- **(E)** 60
- 36. What approximate value will come in place of the question mark (?) in the following question? (Note: You are not expected to calculate the exact value.)
  - 47.98% of  $4499.87 + (4319.77 \div 2.98) = ? ×$ 59.67 + 599.76
  - **(A)** 50
- **(B)** 25
- **(C)** 80
- **(D)** 185
- **(E)** 120
- 37. What approximate value will come in place of the question mark (?) in the following question? (Note: You are not expected to calculate the exact value.)
  - $(? \times 7.68) + 149.89 = \sqrt{1025} \times 4.89 + \sqrt{98} +$ 99.99
  - (A) 65
- **(B)** 90
- **(C)** 40
- **(D)** 15
- **(E)** 130
- 38. What approximate value will come in place of the question mark (?) in the following question? (Note: You are not expected to calculate the exact value.)
  - $\frac{\sqrt{124.89 \times 11.76}}{\sqrt{124.89 \times 11.76}} \times 131.89 = ?^2 + 176.45$  $\sqrt{59.75}$
  - (A) 88
- **(B)** 56
- **(C)** 22
- **(D)** 10
- **(E)** 38
- 39. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)

- $(432.45 + 317.89) \div 14.89 = ?\% \text{ of } 19.89\% \text{ of }$ 1499.77 - 250.45
- **(A)** 40
- **(B)** 100
- **(C)** 75
- **(D)** 15
- **(E)** 125
- 40. What approximate value will come in place of the question mark (?) in the following question?(Note: You are not expected to calculate the exact value.)
  - $14.89^2 + (104.68 \times 11.89) = (? + 224.72) \times 5.05$
  - **(A)** 196
- **(B)** 112
- **(C)** 160
- **(D)** 38
- **(E)** 72
- Directions (41-45): Answer the questions based on the information given below.

Four different people sold two types of knives i.e. cleavers and santoku. The given line graph shows the difference between number of cleavers and number of santoku sold, by four different sellers.



- 41. The number of cleavers sold by Sujit is how much percent of total number of knives sold by Ranjit?
  - (A) 45%
- **(B)** 50%
- **(C)** 25%
- **(D)** 40%
- **(E)** 30%
- Find the average of number of santokus sold by Ajit and Ranjit.
- **(A)** 240
- **(B)** 360
- **(C)** 280
- **(D)** 420
- **(E)** 340

- Sujit sold 40% of number of cleavers and 43. 1/4<sup>th</sup> of number of santokus, on Sunday then find the number of knives sold by Sujit on Sunday.
  - **(A)** 176
- **(B)** 216
- **(C)** 198
- **(D)** 232
- **(E)** 224
- 44. Number of knives sold by Akshar is 280 less than number of cleavers sold by Ajit and Manjit together. Find total number of knives sold by 51. Akshar.
  - (A) 1080
- **(B)** 960
- **(C)** 1040
- **(D)** 1120
- **(E)** 920
- 45. The number of cleavers sold by Suraj is equal to the difference between the number of cleavers sold by Ranjit and number of santokus sold by Manjit. Find the number of cleavers sold by Suraj.
  - **(A)** 264
- **(B)** 300
- **(C)** 340
- **(D)** 280
- **(E)** 240
- **Direction:** (46-50): In the question, two equations I and II are given. You have to solve both the equations to establish the correct relation between x and y and choose the correct option.
- I.  $x^2 26x + 168 = 0$  II.  $y^2 = 172 28$ 46.

  - (A) x > y
- **(B)** x < y
- (C) x = y or the relationship cannot be established
- **(D)**  $x \ge y$
- **(E)**  $x \le y$
- 47. I.  $20x^2 - 16x + 3 = 0$
- II.  $5v^2 18v + 16 = 0$
- (A) x > y
- **(B)** x < y
- (C) x = y or the relationship cannot be established
- **(D)**  $x \ge y$
- (E)  $x \le y$
- I.  $(x-8)^2 = 196 15x$  II. 19y + 324 = 15348.
- (A) x > y
- **(B)** x < y
- (C) x = y or the relationship cannot be established
- **(D)**  $x \ge y$
- (E)  $x \le y$
- 49. (A) x > y
  - I.  $11x^2 28x + 12 = 0$  II.  $2y^2 + 19y 60 = 0$ 
    - **(B)** x < y
- 55.

90

- (C) x = y or the relationship cannot be established
- **(D)**  $x \ge y$
- (E)  $x \le y$

- **50.**
- I.  $21x^2 16x + 3 = 0$  II.  $7y^2 38y + 15 = 0$
- (A) x > y
- **(B)** x < y
- (C) x = y or the relationship cannot be established
- **(D)**  $x \ge y$
- (E)  $x \le y$

A can has only two types (A and B) of oil in the ratio 7:4, respectively. When 60 1 of oil 'B' is added to the can then quantity of oil 'A' becomes 87.5% of that of oil 'B'. Find the capacity of the can if it becomes full after addition of 60 l of oil.

- **(A)** 175 1
- **(B)** 225 1
- **(C)** 240 1

52.

53.

54.

- **(D)** 180 1
- **(E)** None of these
- 12 men and 15 boys can complete a work in 20 days. If each boy is at least 40% as efficient as each man, then find the highest time taken by 24 men and 20 boys to complete the work together.
- (A) 9.25 days
- **(B)** 12.5 days
- **(C)** 11.25 days
- **(D)** 8.75 days
- (E) Cannot be determined
- The average number of soaps sold by 'A' in 1st 4 months is 4000 and in 1st 5 months is 4800. If the number of soaps sold by him in 6<sup>th</sup> month is 25% less than that in 5<sup>th</sup> month then find total number of soaps sold in 6<sup>th</sup> month.
- **(A)** 6000
- **(B)** 4800
- **(C)** 6400
- **(D)** 5000
- **(E)** None of these
- The ratio of the present ages of 'A' and 'B' is 6:5, respectively. If the age of 'A' 12 years hence from now will be 125% more than the age of 'B' 4 years ago from now, then find the age of 'A' 2 years ago from now.
- (A) 20 years
- **(B)** 24 years
- **(C)** 22 years
- **(D)** 18 years
- **(E)** None of these
- The ratio of present incomes of 'A' and 'B' is 10:7, respectively. Next year, their income will









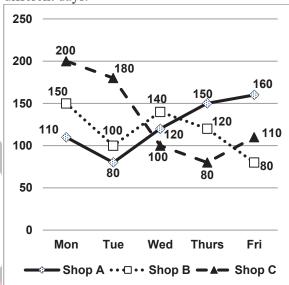
increase by 25% and 20%, respectively and the 60. difference between their incomes will be Rs.1640. Find the difference of their present incomes.

- (A) Rs.1200
- **(B)** Rs.1500
- (C) Rs.900
- **(D)** Rs.750
- **(E)** None of these
- In a business, the investment of 'B' is 25% **56.** more than that of 'A' and the ratio of the investment of 'B' to 'C' is 5:6 and the ratio of the time period of the investments of 'A', 'B' and 'C' is 9:6:5, respectively. Find the ratio of profits received by 'A', 'B' and 'C', respectively.
  - **(A)** 6:5:5
- **(B)** 3:2:2
- **(C)** 9:4:4
- **(D)** 2:1:1
- (E) None of these
- 57. Distance between two cities 'M' and 'N' is 840 km. Train A starts from 'M' at 9:30 AM with the speed of 42 km/h and train B starts from 'N' at 10 AM with the speed of 49 km/h. What will be the distance between both trains at 12:30 PM?
  - (A) 700 km
- **(B)** 712.5 km
- (C) 484 km
- **(D)** 591.5 km
- **(E)** None of these
- Reet deposited Rs. (x + 2000) at 15% per **58.** annum simple interest and earned Rs.6750 as interest after 2.5 years. Find the interest earned 61. by her if she deposited Rs.x at 10% per annum for 2 years at compound interest, compounded annually.
  - (A) Rs.3200
- **(B)** Rs.3360
- (C) Rs.3620
- (D) Rs.3260
- **(E)** None of these
- 59. The ratio of present incomes of 'A' and 'B' is 10:7, respectively. Next year, their income will increase by 25% and 20%, respectively and the difference between their incomes will be Rs.1640. Find the difference of their present incomes.
  - (A) Rs.1200
- **(B)** Rs.1500
- (C) Rs.900
- **(D)** Rs.750
- **(E)** None of these

- Using the letters of the word 'ARISE', how many different five letter words can be formed that start and end with vowel?
  - **(A)** 72
- **(C)** 64
- **(D)** 24
- **(E)** 36

**Directions (61-65):** Answer the questions based on the information given below.

> The line graph given below shows the number of rakhis sold by 3 different shops on five different days.



- What is the ratio of the number of Rakhis sold by shops 'A' and 'C' together on Friday to the number of Rakhis sold by shops 'A' and 'B' together on Tuesday?
  - (A) 4:3
- **(B)** 3:2
- **(C)** 6:5
- **(D)** 7:6
- **(E)** None of these
- **62.** What is the difference between the number of Rakhis sold by shop 'A' on Monday and Thursday together and the number of Rakhis sold by shops 'B' and 'C' together on Tuesday?
  - **(A)** 40
- **(B)** 60
- **(C)** 30
- **(D)** 20
- **(E)** 50
- 63. What is the average of the number of Rakhis sold by shops 'A', 'B' and 'C' together on Wednesday?
  - **(A)** 120
- **(B)** 150
- **(C)** 130
- **(D)** 140











- (E) None of these 64. If the cost price of a Rakhi is Rs.20 and the shopkeeper sold it on 30% profit, then find the total profit earned by shopkeeper 'A' on 69. Tuesday. (Assume the cost price and the selling price of each Rakhi is same for all the shops in all days) (A) Rs.420 **(B)** Rs.480 (C) Rs.360 **(D)** Rs.400 **(E)** Rs.540
- **65.** The number of Rakhis sold by shop 'B' on Thursday and Friday together is how much percent more than the number of Rakhis sold **Directions** (71-75): Answer the questions based on the by shop 'A' on Friday? **(A)** 40%

**(B)** 20%

**(C)** 25%

**(D)** 30%

(E) None of these

# Reasoning Aptitude

Directions (66-70): Answer the questions based on the information given below.

> Eight persons P, Q, R, S, T, U, V and W are sitting in a row facing north direction. Each of them has different number of books from 1 to 8. Two persons sit to the right of T. P sits third to the left of O, who has 4 books. O does not sit at any extreme end. One person sits between P and R. S sits immediate left of W. U, who has 6 books, sits to the left of V, who does not sit adjacent to T. P has twice number of books than that of R. W has even number of books. V has more books than T, who has more books than S.

Who among the following has highest number 72. **66.** of books?

(A) R

**(B)** V

(C) W

**(D)** Q

**(E)** T

**67.** How many persons sit to the left of Q?

(A) Six

(B) One

(C) Five

**(D)** Three

**(E)** Four

What is the sum of number of books of R and 74. **68. P**?

(A) 4

**(C)** 5

**(B)** 3 **(D)** 2

**(E)** 6

Who sits at extreme right end?

(A) W

**(B)** V

(C) Q

**(D)** T

**(E)** U

70. V has books.

(A) 3

**(B)** 1

**(C)** 5

**(D)** 7

**(E)** 8

information given below.

Six functions A, B, C, D, E and F are held on 1st of different months (March, April, May, July, August and September) in the same year. These functions are held in different places among Bhopal, Pune, Jaipur, Chennai, Mumbai and Hyderabad.

Two functions are held between F and D, which is held in a month, which has only 30 days. One function is held between C and the one held in Mumbai. E is held in Chennai but after C.

Function in Pune is held before A. Function in Bhopal is held four months after B. The function in Mumbai is held immediately before F. Function in Hyderabad is not held in a month, which has only 30 days.

D is held in which place? 71.

(A) Bhopal

(B) Jaipur

(C) Pune

**(D)** Hyderabad

**(E)** None of the above

Which event is held in Hyderabad?

(A) A

**(B)** F

(C) C

**(D)** E

**(E)** D

73. Find the odd one out:

(A) E

**(B)** A

**(C)** F

**(D)** B

**(E)** C

is held three months after A.

**(A)** E

**(B)** F

**(C)** C

**(D)** A











- **(E)** None of the above
- 75. How many functions are held before the one, held in Hyderabad?
  - (A) Four
- (B) One
- (C) Three
- **(D)** Two
- **(E)** None of the above
- **76.** In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly.

# **Statements:**

 $C > M > D; R \le A = C; K < D \le L < V$ 

Conclusions: I. A > K II. V > M

III. L > C

- (A) Only conclusion I is true
- **(B)** Only conclusions I and II are true
- (C) Only conclusion II is true
- (D) All conclusions I, II and III are false
- (E) Only conclusions II and III are true
- 77. In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is /are definitely true and then give your answer accordingly.

Statements:  $C > R \ge D$ ;  $L < C \ge P$ ; M < D > O

Conclusions: I. M < C II. O < R

III. P < D

- (A) Only conclusion I is true
- **(B)** Only conclusions I and II are true
- (C) Only conclusion II is true
- (D) All conclusions I, II and III are false
- (E) Only conclusions II and III are true
- **Directions (78-79):** Answer the questions based on the information given below:

Eight points are drawn on a sheet of paper. G is 7 cm to the west of D. C is 7 cm to the south of B. F is 4cm west of A, which is 11 cm to north of D. C is 5 cm west of H, which is 5 cm south of G. E is 4 cm west of B.

- **78.** What is the shortest distance between E and F?
  - (A) 15 cm
- **(B)** 18 cm
- (C) 13 cm
- **(D)** 17 cm
- **(E)** None of the above
- 79. What is the direction of H with respect to A?
  - (A) South-west
- (B) North-west

(C) South-east

80.

81.

- (D) South
- **(E)** None of the above
- A person moves 5m towards north, then turns right and moves 7m. He turns left and walks for 4m. Finally, he turns left and walks for 9m. What is the direction of man's starting position with respect to the final position?
- (A) North-west
- **(B)** North-east
- (C) South-west
- (D) South-east
- (E) South
- In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is/are definitely true and then give your answer accordingly.

Statements:  $G > R \ge D < M$ ;  $B \ge L > D$ ; C < G

Conclusions: I. B > R II. C < M

III. G > D

- (A) Only conclusion I is true
- **(B)** Only conclusions I and II are true
- (C) Only conclusion III is true
- (D) All conclusions I, II and III are false
- (E) Only conclusions II and III are true
- **82.** Which of the following symbols should replace the question marks (?) in the given expression in order to make the expressions 'C < R' definitely true?

A < D? R;  $A \ge G \ge L$ ? C

- (A) >, >
- $(B) \leq , \leq$
- (C) <, =
- **(D)** ≥, <
- **(E)** None of the above

**Directions (83-87):** Answer the questions based on the information given below.

> Eight boxes P, O, R, S, T, U, V and W are kept one above another such that bottommost box is numbered as 1, box above it as 2 and so on. Each of the boxes has different weights (in kg) among 10, 12, 13, 15, 17, 18, 20 and 25.

> Box S is just above box V, which is an even numbered box. Box Q, whose weight is 20kg, is just above box R, whose weight is 25kg. There are three boxes above box P. Box T is third box above the box, whose weight is 18kg. Box P is below box T, which is not the topmost box. Weight of box P is 5kg more than that of box T. Weight of box W is 1kg more than that of box U. Box W is above box U.











- 83. Which among the following box is the topmost box?
  - (A) Box V
- **(B)** Box Q
- (C) Box R
- (D) Box T
- (E) Box S
- 84. What is the weight of box U?
  - (A) 20 kg
- **(B)** 17 kg
- **(C)** 18 kg
- **(D)** 12 kg
- **(E)** 15 kg
- 85. How many boxes are above box S?
  - (A) Five

**(B)** Two

- (C) Three
- (D) Six
- (E) One
- 86. What is the sum of weights of box R, box V and box P?
  - (A) 59 kg
- **(B)** 57 kg
- (C) 65 kg
- **(D)** 83 kg
- **(E)** 90 kg
- **87.** The weight of box T is
  - **(A)** 20
- **(B)** 25
- **(C)** 12
- **(D)** 17
- **(E)** 10
- Directions (88-90): Answer the questions based on the information given below.

There are eight members C, D, K, L, M, R, S and V in a family which has three generations. 94. There are two married couples. No single person has a child in the family.

R is the daughter of the person, who is the sonin-law of brother of K.V is the only sister of K. M is the son of L, who has sibling. Neither C nor D is male member. C is not married to S.

- 88. How is C related to K?
  - (A) Sister-in-law
- **(B)** Aunt
- (C) Mother-in-law
- (D) Sister
- **(E)** None of the above 89.
  - How is S related to brother of K?
    - (A) Son
- **(B)** Brother
- (C) Nephew
- (D) Son-in-law
- **(E)** None of the above

- If K is a female member, then the ratio of female members to male members in the family
  - (A) 3:5

90.

91.

92.

93.

- **(B)** 4:1
- **(C)** 5:3
- **(D)** 1:4
- (E) Can't be determined
- If all the digits of the number "7963489652" are decreased by 1, then what is the sum of all the even digits of the number, after rearrangement?
  - **(A)** 26
- **(B)** 28
- **(C)** 22
- **(D)** 24
- **(E)** None of the above
- How many pairs of letters are there in the word "TEACHINGS" which has as many letters between them in the word as in the English alphabetical series?
- (A) Five

**(B)** Four

- (C) Eight
- **(D)** Four
- **(E)** None of the above
- Six persons P, Q, R, S, T and U have different weights. R is lighter than Q. S is heavier than P. R is not lighter than S. T is lighter than P but not the lightest, then how many persons are heavier than S?
  - (A) Three
- **(B)** Four
- (C) One

- **(D)** Two
- **(E)** None of the above
- If an English meaningful word is formed by using the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 9<sup>th</sup> letter (from the left end) of the word 'REASONABLY' then what is the 3rd letter from the left end of the word thus formed. If more than one such meaningful word is formed mark 'X' as your answer. If no English meaningful word is formed, mark 'Z' as your answer?
- (A) S
- **(B)** Z
- **(C)** B
- **(D)** X
- **(E)** N
- If 2<sup>nd</sup> letter of each word from each group is considered, then which among the following group can make 3 letter English Meaningful word if each of the letters is used only once?
- I. Rent, Fry, Fancy
- II. Origin, Chair, Plastic
- III. First, Euro, Scent









95.



(A) Only I

**(B)** Only II

(C) Only I and II

(D) Only I and

(E) Only III

**Directions** (96-100): Answer the questions based on 97. the information given below.

> Ten persons A, B, C, D, E, F, G, H, I and J are sitting around a circular table such that some of them are facing towards the centre while some 98. are facing away from the centre.

Note: Facing same direction means if one person faces the centre then the other person also faces towards the centre and if one faces away from the centre then the other person also faces away from the centre. Similarly, facing opposite direction means if one person faces away from the centre then the other person faces towards the centre and vice versa.

G is not sitting adjacent to D. Immediate neighbors of G are facing the same direction. I 99. is sitting second to the right of H. B is sitting opposite to A and both are facing the same direction. E is facing away from the centre and is a neighbor of C. Both the immediate neighbors of F are facing away from the centre. B is sitting second to the left of J. D is sitting third to the left of H. I and H are facing the same direction and none of them is an 100. immediate neighbor of E. G is not facing the same direction as F and H. The one who is sitting opposite to C is facing away from the centre. E is sitting third to the left of G. E and D are not an immediate neighbors of each other. D and C are facing towards the centre.

96. Who sits immediate left of C?

(A) E

**(B)** A

**(C)** F

**(D)** J

**(E)** None of the above

Who sits 4<sup>th</sup> to the left of J?

(A) A

**(B)** D

**(C)** B

(D) Either A or D

**(E)** H

Which of the following statement is/are true? I. Number of people sits between A and J when counted from the right of A is same as between G and B when counted from the right of G.

II. F and B are facing the same direction

III. Both E and F are not sitting opposite to each other

(A) Only I

(B) Only II and I

(C) Only III

(D) Only III and II

(E) Only II

Four of the following five are related to each other in some way and thus formed a group. Choose the one which does not belong to that group.

(A) A, F

**(B)** C, G

(C) E, H

**(D)** B, D

**(E)** J, D

How many persons facing away from the centre?

(A) Four

**(B)** Two

(C) Three

**(D)** Five

(E) Six

# Solution

# English Language

1. Answer: (B)

> We need a past participle form verb to fit in the passive voice clause. FOLLOWED (proceeded) will fit here as the sentence tells us how the world's first space docking was proceeded by the first in-flight emergency. Thus, (b) is the right answer.

Allowed - permitted. Prevented - averted. Pervaded - spread through an area. Hinted suggested indirectly.

Answer: (D)

We need a verb to agree with the subject ACCELERATED (increased ROTATION. pace) will fit here as the sentence tells us how the Gemini's rotation increased its pace to the point where the crew could black out and die. Thus, (d) is the right answer.









Decided - determined. Applied - put to use. Accessed - entered or made use of. Considered - accounted for.

#### 3. Answer: (C)

We need a noun to be modified by the 9. indefinite article A. TECHNIQUE (method) will fit here as the sentence tells us how space docking is a technique essential to the Apollo lunar landing program. Thus, (c) is the right answer.

Commotion - disorder. Felony - crime. Commitment - dedication. Agony - pain; suffering.

#### Answer: (A) 4.

We need a gerund here to be modified by the adjective COOL. HANDLING (tackling) will fit here as the sentence tells us about their cool tackling of the crisis. Thus, (a) is the right answer.

Implying - suggesting. Yielding - producing. Hampering - disrupting. Appeasing - placating.

#### 5. Answer: (E)

We need a verb here. ENSURED (made sure) 11. will fit here as the sentence tells us how their tackling of the situation guaranteed their roles in the program. Thus, (e) is the right answer. Faded - withered. Aided - helped. Announced declared. Executed - carried out.

#### Answer: (A) 6.

We need a verb here to agree with the subject STRUCTURES. DISRUPT and HAMPER means to disturb the normal functioning of something, and will fit here as the sentence tells us how many of the structures disturb the natural coastal processes. Thus, (a) is the right

Hoist - lift. Demean - humiliate.

#### 7. Answer: (C)

We need a noun here to be modified by the definite article THE. COURAGE and SPINE mean bravery, and will fit here as the sentence 13. tells us how confidence in the strength of their ideas will give people the resolve to stand up to threats and intimidation. Thus, (c) is the right answer.

Hindrance - obstacle. Catastrophe - disaster.

#### Answer: (A) 8.

We need a noun here to be modified by the possessive pronoun ITS. CONTEMPT and 14. DISREGARD mean disrespect and will fit here as the sentence tells us how the government's

lack of initiative to introduce changes is indicative of its lack of respect for democratic ideals. Thus, (a) is the right answer.

Apathy - indifference. Illusion - false belief.

## Answer: (B)

We need a base form verb to fit in the TO + VERB infinitive construction. INSTIGATE (provoke) will fit here as the sentence tells us how he tried to incite a revolt among the region's enslaved people. Thus, (b) is the right answer.

Utilise use up; consume. Attune become used to. Induce urge. Berate scold; criticise.

# Answer: (A)

10.

12.

We need a verb here to agree with the subject PARTY. ADVOCATED (promoted) will fit here as the sentence tells us how the party promoted the development of a pluralistic society. Thus, (a) is the right answer.

Abated subsided. Arranged placed; positioned. Awaited waited for something or someone. Applauded expressed appreciation.

### Answer: (E)

We need a base form verb to fit in the TO + VERB infinitive construction. EMBRACE (adopt) will fit here as the sentence tells us how Americans needed to adopt African-American perspectives. Thus, (e) is the right answer.

Obstruct - block. Claim - assert. Yield surrender. Reject - deny.

### Answer: (C)

We need a base form verb to fit in the TO + VERB infinitive construction. (demonstrate) will fit here as the sentence tells us how he wanted to make people aware of the unrecognized influence of Africans and African Americans in the advancement of scholarship and culture. Thus, (c) is the right answer.

Prevent - avert. Wail - shout. Repeal - cancel. Command order.

### Answer: (B)

We need a noun here to be modified by the definite article THE. PREMISES (property) will fit here as the sentence tells us how the rioters entered the property. Thus, (b) is the right answer.

Plight - condition. Precautions - measures. Protection - security. Potent (adj.) - powerful.

### Answer: (C)

CABD is the final order. Thus, (c) is the right answer. C begins the sentence by introducing









the subject - peanut butter. A follows C by telling us that it has a less healthy reputation. B and D follow A in a pair and give us the reason for the same peanut butter has historically contained ingredients such as palm oil, sugar and salt.

#### 15. Answer: (C)

CADB is the final order. Thus, (c) is the right answer. C begins the sentence by establishing the subject - people who eat nuts. It says that they may be eating a range of different nuts. A follows C. It starts with AND and provides additional information. It tells us that they may be benefiting from the different vitamins and minerals found in nuts. D follows A. It starts with WHEREAS and provides contrasting information. It talks about people who eat peanut butter as opposed to those who eat nuts. B concludes the sentence by stating that people who eat peanut butter might not be eating any other types of nuts.

#### **16.** Answer: (E)

ABCD is the final order. Thus, (e) is the right answer. A begins the sentence by establishing the subject - green finance programmes at a national level. B follows A by saying that they have the potential to shape investment decisions. C and D follow B by adding that such programmes also help drive both financial stability and a long-term focus on fair outcomes and sustainability.

#### Answer: (A) 17.

ABCD are correct, and the error is in E. In E, replace the plural verb FLOW with the singular FLOWS as the subject pronoun IT is singular. 22. Thus, (a) is the right answer.

#### 18. Answer: (B)

ACDE are correct, and B is incorrect. In B, replace the base form verb REPOSITION with REPOSITIONED as the passive construction ARE + TO + BE + VERB will take the past participle form of the verb. Thus, (b) is the right answer.

#### 19. Answer: (D)

SROPTU is the final order. S begins the passage by introducing the main idea discussed - fish are becoming rare in the Irrawaddy River due to electrofishing. R describes how the practice of electrofishing works. Q follows by 23. telling us how it is disrupting the food chain by killing off smaller fish consumed by dolphins.

P proceeds by telling us how it can directly kill dolphins as well. T follows by telling us how the Irrawaddy dolphin has been classified as vulnerable as a consequence of this. U concludes by telling us how this is endangering the relationship between dolphins and humans.

#### 20. Answer: (B)

SROPTU is the final order. S begins the passage by introducing the main idea discussed - fish are becoming rare in the Irrawaddy River due to electrofishing. R describes how the practice of electrofishing works. Q follows by telling us how it is disrupting the food chain by killing off smaller fish consumed by dolphins. P proceeds by telling us how it can directly kill dolphins as well. T follows by telling us how the Irrawaddy dolphin has been classified as vulnerable as a consequence of this. U concludes by telling us how this is endangering the relationship between dolphins and humans.

#### 21. Answer: (A)

SRQPTU is the final order. S begins the passage by introducing the main idea discussed - fish are becoming rare in the Irrawaddy River due to electrofishing. R describes how the practice of electrofishing works. Q follows by telling us how it is disrupting the food chain by killing off smaller fish consumed by dolphins. P proceeds by telling us how it can directly kill dolphins as well. T follows by telling us how the Irrawaddy dolphin has been classified as vulnerable as a consequence of this. U concludes by telling us how this is endangering the relationship between dolphins and humans.

# Answer: (C)

SRQPTU is the final order. S begins the passage by introducing the main idea discussed - fish are becoming rare in the Irrawaddy River due to electrofishing. R describes how the practice of electrofishing works. Q follows by telling us how it is disrupting the food chain by killing off smaller fish consumed by dolphins. P proceeds by telling us how it can directly kill dolphins as well. T follows by telling us how the Irrawaddy dolphin has been classified as vulnerable as a consequence of this. U concludes by telling us how this is endangering the relationship between dolphins and humans.

### Answer: (B)

SRQPTU is the final order. S begins the passage by introducing the main idea discussed









- fish are becoming rare in the Irrawaddy River due to electrofishing. R describes how the practice of electrofishing works. Q follows by 27. telling us how it is disrupting the food chain by killing off smaller fish consumed by dolphins. P proceeds by telling us how it can directly kill dolphins as well. T follows by telling us how the Irrawaddy dolphin has been classified as vulnerable as a consequence of this. U concludes by telling us how this is endangering the relationship between dolphins and humans.

#### 24. Answer: (B)

Refer to the lines: "The microwear on the 28. analyzed fossil teeth showed damage patterns most similar to modern-day lions. Translating this to diet, it means that Thylacoleo didn't avoid chewing on bone as assiduously as cheetahs do, but it wasn't a bone-crusher like the spotted hyena. Thylacoleo came out somewhere in between, mostly preferring to feed on flesh but sometimes chewing on-or through—the bones of its prey."

The other options are invalidated the information in the above lines.

#### 25. Answer: (D)

Both A and B are mentioned in the passage as factors that affected the Thylacoleo's hunting ability. Refer to the lines: "If the researchers are correct that Thylacoleo relied on the forest for cover to stalk its prey, then the desertification 30. of Australia would have stripped away the marsupial lion's cover, leading to its demise. Given what we now know about the diet of Thylacoleo and its preferred habitat, harsh climate shifts made all the difference for this carnivore. It was an ambush hunter, it was eating prey from these forests, it's postcranial anatomy indicates its pouncing from trees or some sort of cover and the loss of forest cover would have directly affected this carnivore's ability to pounce upon its preferred prey, not to mention that there would be less prey to stalk in these environments."

C is not mentioned in the passage.

#### 26. Answer: (E)

Refer to the lines: "But unique among this subclass of mammals, Thylacoleo preyed on other animals for its food, paleontologists know the ancient creature as the "marsupial lion."

None of the other options is mentioned in the passage.

## Answer: (D)

Refer to the lines: "Based upon the isotope data and other lines of evidence, such as where Thylacoleo bones have been found with other fossils, scientists hypothesize that this carnivore was an ambush predator that preferred relatively wooded environments, offering plenty of cover."

None of the other options is mentioned in the passage.

## Answer: (C)

Both 1 and 3 are mentioned in the passage. Refer to the lines: "In the old forests of Australia, Thylacoleo could stalk ancient, giant kangaroos like Protemnodon." This confirms 1. Refer to the lines: "The cheek teeth of Thylacoleo are very distinctive. They are more square than triangular, having the appearance of meat cleavers that slid past each other to shear through flesh." These lines confirm 3.

2 is not mentioned or implied in the passage.

#### 29. Answer: (B)

INDICATES means to suggest or show, which will make (b) the right answer.

Employs - hires. Narrates - tells a story or experience. Persuades - convinces. Disrupts hampers.

## Answer: (D)

UNIQUE means rare, and USUAL is its antonym.

Distinct - different. Furious - enraged. Amusing - funny. Genuine sincere.

## Quantitative Aptitude

# Directions (31-35):

	n cetions (51 55).					
		Number of	Total	Number of		
	Companies	permanent	number of	temporary		
		employees	employees	employees		
	A	$2500 \times 0.2$	800	800 - 500		
	А	= 500	800	= 300		
	В	2500 ×	500	500 - 300		
	В	0.12 = 300	300	= 200		
	С	2500 ×	600	600 - 375		
	C	0.15 = 375	000	= 225		
	D	2500 ×	900	900 - 600		
	D	0.24 = 600	900	= 300		
	Е	2500 ×	250	350 - 200		
		0.08 = 200	350	= 150		









F	2500 × 0.21 = 525	725	

- 31. Answer: (B)
  - Required ratio = 600:150 = 4:1
- 32. Answer: (A)
  - Required difference = 300 200 = 100
- 33. Answer: (B)

The difference between the number of permanent and temporary employees in company 'C' = 375 - 225 = 150

- Required percentage =  $(150/600) \times 100 = 25\%$
- Answer: (A) 34.

Sum of total number of employees in companies B, E and F together = 500 + 350 +725 = 1575

- Required average = 1575/3 = 525
- Answer: (C) 35.

The number of male employees who are permanent in company 'E' =  $(200/5) \times 3 = 120$ The number of male employees in company 'E' =350-200=150

The number of male employees who are temporary in company 'E' = 150 - 120 = 30

Answer: (A) 36.

47.98% of  $4499.87 + (4319.77 \div 2.98) = ? ×$ 59.67 + 599.76

 $48\% \text{ of } 4500 + (4320 \div 3) \sim ? \times 60 + 600$ 

 $0.48 \times 4500 + 1440 \sim ? \times 60 + 600$ 

 $? \times 60 \sim (2160 + 1440 - 600)$ 

 $? \sim 3000 \div 60$ 

- $? \sim 50$
- 37. Answer: (D)

$$(? \times 7.68) + 149.89 = \sqrt{1025} \times 4.89 + \sqrt{98} + 99.99$$

 $(? \times 8) + 150 \sim \sqrt{1024} \times 5 + \sqrt{100} + 100$ 

 $(? \times 8) \sim 32 \times 5 + 10 + 100 - 150$ 

 $? \times 8 \sim 120$ 

 $? \sim 120 \div 8$ 

 $? \sim 15$ 

38. Answer: (C)

$$\frac{\sqrt{124.89 \times 11.76}}{\sqrt{59.75}} \times 131.89 = ?^{2} + 176.45$$

$$\frac{\sqrt{125 \times 12}}{\sqrt{60}} \times 132 \sim ?^{2} + 176$$

$$5 \times 132 - 176 \sim ?^{2}$$

$$?^{2} \sim 484$$

$$? \sim \pm 22$$

39. Answer: (B)

> $(432.45 + 317.89) \div 14.89 = ?\% \text{ of } 19.89\% \text{ of }$ 1499.77 - 250.45

 $(432 + 318) \div 15 \sim ?\% \text{ of } 20\% \text{ of } 1500 - 250$ 

$$(750 \div 15) + 250 \sim ?\% \text{ of } 0.2 \times 1500$$

 $?\% \times 300 \sim 300$ 

 $? \sim 100$ 

**40.** Answer: (E)

 $14.89^2 + (104.68 \times 11.89) = (? + 224.72) \times 5.05$ 

 $15^2 + (105 \times 12) \sim (? + 225) \times 5$ 

 $(225 + 1260) \div 5 \sim ? + 225$ 

 $? \sim 297 - 225$ 

 $? \sim 72$ 

## Directions (41-45):

For Aiit:

Let, number of cleavers and santoku sold be 13x and 7x, respectively

According to the question,

13x - 7x = 480

Or, 6x = 480

Or, x = 80

Therefore, number of cleavers sold = 13x =

Number of santoku sold = 7x = 560

Total number of knives sold = 1040 + 560 =1600

Similarly.

Sillilla	шу,		
Seller	Number	Number of	Total
	of	santoku	number of
	cleavers	sold	knives sold
	sold		
Ajit	1040	560	1600
Sujit	280	480	760
Ranjit	440	120	560
Manjit	320	140	460

41. Answer: (B)

Required percentage =  $(280/560) \times 100 = 50\%$ 

Answer: (E) 42.

Required average =  $\{(560 + 120)/2\} = 340$ 

Answer: (D) 43.

Required number of knives sold =  $(0.4 \times 280)$  +

 $(0.25 \times 480) = 112 + 120 = 232$ 

44. Answer: (A)

> Required number of knives = 1040 + 320 - 280= 1080

45. Answer: (B)

> Number of cleavers sold by Suraj = 440 - 140= 300

Answer: (D) 46.

From I:

 $x^2 - 26x + 168 = 0$ 

 $x^2 - 12x - 14x + 168 = 0$ 

x(x-12)-14(x-12)=0

(x-12)(x-14)=0

x = 14, 12













From II:

$$y^2 = 172 - 28$$

$$y^2 = 144$$

$$y = \pm 12$$

, –		
X	Relation	У
12	=	12
12	>	-12
14	>	12
14	>	-12

So,  $x \ge y$ 

#### 47. Answer: (B)

From I:

$$20x^2 - 16x + 3 = 0$$

$$20x^2 - 6x - 10x + 3 = 0$$

$$(10x-3)(2x-1)=0$$

$$x = 3/10$$
 or,  $x = 1/2$ 

From II:

$$5y^2 - 18y + 16 = 0$$

$$5y^2 - 8y - 10y + 16 = 0$$

$$(5y-8)(y-2)=0$$

y = 8/5 or y = 2

X	Relation	Y
3/10	<	8/5
3/10	<	2
1/2	<	8/5
1/2	<	2

So, y > x

#### 48. Answer: (C)

From I:

$$(x-8)^2 = 196 - 15x$$

Or, 
$$x^2 - 16x + 64 = 196 - 15x$$

Or, 
$$x^2 - x - 132 = 0$$

Or, 
$$x^2 - 12x + 11x - 132 = 0$$

Or, 
$$x(x-12) + 11(x-12) = 0$$

Or, 
$$(x + 11)(x - 12) = 0$$

Or, 
$$x = -11$$
 or  $x = 12$ 

From II:

$$19y + 324 = 153$$

$$19y = -171$$

Or, 
$$y = -9$$

X	Relation	Y
-11	<	-9
12	>	-9

So, no relation can be established between 'x' and 'y'.

#### 49. Answer: (C)

From I:

$$11x^2 - 28x + 12 = 0$$

$$11x^2 - 22x - 6x + 12 = 0$$

$$11x(x-2)-6(x-2)=0$$

$$(11x - 6)(x - 2) = 0$$

$$\hat{x} = (6/11), 2$$

From II:

$$2y^2 + 19y - 60 = 0$$

$$2y^2 - 5y + 24y - 60 = 0$$

$$y(2y-5) + 12(2y-5) = 0$$

$$(2y-5)(y+12)=0$$

y = (5/2), -12

X	Relation	y
6/11	<	5/2
6/11	>	- 12
2	<	5/2
2	>	- 12

So, relationship between x and y cannot be established.

#### 50. Answer: (E)

From I:

$$21x^2 - 16x + 3 = 0$$

$$21x^2 - 7x - 9x + 3 = 0$$

$$7x(3x-1) - 3(3x-1) = 0$$

$$(7x - 3)(3x - 1) = 0$$

x = 3/7, 1/3

From II:  $7y^2 - 38y + 15 = 0$ 

$$7y^2 - 35y - 3y + 15 = 0$$

$$7y(y-5)-3(y-5)=0$$

$$(y-5)(7y-3)=0$$

y = 5, 3/7

X	Relation	у
3/7	=	3/7
3/7	<	5
1/3	<	3/7
1/3	<	5

So,  $x \le y$ 

#### 51. Answer: (B)

Let, the quantity of oil in the can be 7x 1 and 4x1 respectively

According to the question,

$$7x = 0.875 \times (4x + 60)$$

Or, 
$$7x - 3.5x = 52.5$$

Or, 
$$3.5x = 52.5$$

Or, 
$$x = 15$$

Therefore, total capacity of the can = 7x + 4x +60 = 105 + 60 + 60 = 2251

#### 52. Answer: (C)

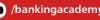
Time taken will be highest when the efficiency

Therefore, when efficiency of each boy is 40% of the efficiency of each man













 $12 \text{ men} + 15 \text{ boys} = 12 \text{ men} + (15 \times 0.4) \text{ men} =$ 

12 men + 6 men = 18 men

24 men + 20 boys = 24 men +  $(20 \times 0.4)$  men = 58.

24 men + 8 men = 32 men

Let, the time taken by 32 men be 'D' days

Therefore,  $18 \times 20 = 32 \times D$ 

Or, D = 11.25 days

Therefore, required time taken = 11.25 days

#### 53. Answer: (A)

Number of soaps sold by 'A' in  $1^{st}$  4 months = 59.

 $4000 \times 4 = 16000$ 

Number of soaps sold by 'A' in 1st 5 months =

 $4800 \times 5 = 24000$ 

Therefore, number of soaps sold by 'A' in

 $5^{\text{th}}$  month = 24000 - 16000 = 8000

Therefore, number of soaps sold by 'A' in

 $6^{\text{th}} \text{ month} = 0.75 \times 8000 = 6000$ 

#### 54. Answer: (C)

Let, the present ages of 'A' and 'B' be 6x years

and 5x years, respectively

According to the question,

(6x + 12) = 2.25(5x - 4)

Or, 6x + 12 = 11.25x - 9

Or, 5.25x = 21

Or, x = 4

Required age = 6x - 2 = 22 years

#### 55. Answer: (A)

Let, the present incomes of 'A' and 'B' be

Rs. 10x and Rs. 7x, respectively According to the question,

 $(1.25 \times 10x) - (1.2 \times 7x) = 1640$ 

Or, 12.5x - 8.4x = 1640

Or, 4.1x = 1640

Or, x = 400

Therefore, required difference = 10x - 7x = 3x

= Rs.1200

#### **56.** Answer: (A)

Let the investment of B = Rs.5x

Investment of C = Rs.6x

Investment of A = Rs. $(5x/125) \times 100 = Rs.4x$ 

Ratio of the profits of A, B and C, respectively  $= (4x \times 9):(5x \times 6):(6x \times 5) = 6:5:5$ 

57. Answer: (D)

Distance travelled by train A in 30 minutes =

42/2 = 21 km

So the remaining distance = 840 - 21 = 819 kmRelative speed of the trains = 42 + 49 = 91

km/h

Time = 12:30 PM - 10 AM = 5/2 hours

Distance covered by both trains =  $91 \times 5/2 =$ 

227.5 km

Distance between both trains = 819 - 227.5 =591.5 km

## Answer: (B)

According to the question

 $6750 = (x + 2000) \times 15\% \times 2.5$ 

18000 = x + 2000

x = 16000

Required interest =  $16000 (1 + 10/100)^2$  -

16000 = 19360 - 16000 = Rs.3360

### Answer: (A)

Let, the present incomes of 'A' and 'B' be

Rs. 10x and Rs. 7x, respectively

According to the question,

 $(1.25 \times 10x) - (1.2 \times 7x) = 1640$ 

Or, 12.5x - 8.4x = 1640

Or, 4.1x = 1640

Or, x = 400

Therefore, required difference = 10x - 7x = 3x

#### 60. Answer: (E)

The word 'ARISE' has three vowels A, I and E which can be arranged at two places in  ${}^{3}P_{2}$  ways =  $3 \times 2 = 6$  ways

Remaining three letters can be arranged in 3!

Ways = 6 ways

Required number of ways =  $6 \times 6 = 36$ 

# Directions (61-65):

_	Directions (or oc).				
		Number of	Number of	Numbe	
1		Rakhis	Rakhis sold	r of	
		sold by	by shop 'B'	Rakhis	
		shop 'A'		sold by	
				shop	
				·C·	
	Monday	110	150	200	
	Tuesday	80	100	180	
	Wednesday	120	140	100	
	Thursday	150	120	80	
	Friday	160	80	110	

#### 61. Answer: (B)

Sum of the number of Rakhis sold by shops 'A' and 'C' together on Friday = 160 + 110 = 270Sum of the number of Rakhis sold by shops 'A'

and 'B' together on Tuesday = 100 + 80 = 180

Required ratio = 270:180 = 3:2

#### Answer: (D) **62.**

Sum of the number of Rakhis sold by shop 'A' on Monday and Thursday together = 110 + 150= 260

Sum of the number of Rakhi sold by shops 'B' and 'C' together on Tuesday = 180 + 100 = 280



Required difference = 280 - 260 = 20

63. Answer: (A)

Sum of the number of Rakhis sold by shops 'A', 'B' and 'C' together on Wednesday = 120 +140 + 100 = 360

Required average = 360/3 = 120

64. Answer: (B)

Profit earned on each Rakhi =  $20 \times 30\%$  = Rs.6 Profit earned by shopkeeper 'A' on Tuesday =  $6 \times 80 = \text{Rs.}480$ 

65. Answer: (C)

> Sum of the number of Rakhis sold by shop 'B' on Thursday and Friday together = 120 + 80 =

Required percentage =  $\{(200 - 160)/160\}$ 100 = 25%

# Reasoning Aptitude

# Directions (66-70):

U(6)P(2)V(7)R(1)Q(4)T(5)S(3)W(8)

66. Answer: (C)

W has highest number of books i.e. 8.

67. Answer: (E)

Four persons sit to the left of Q.

Answer: (B) **68.** 

Sum of number of books of R and P = 1 + 2 = 3

**69.** Answer: (A)

W sits at extreme right end.

Answer: (D) **70.** 

V has 7 books.

## **Directions (71-75):**

Month	Function	Place
March	В	Pune
April	A	Mumbai
May	F	Hyderabad
July	С	Bhopal
August	E	Chennai
September	D	Jaipur

71. Answer: (B)

D is held in Jaipur.

72. Answer: (B)

F is held in Hyderabad.

73. Answer: (B)

> All except A is held in a month, which has only 31 days.

74. Answer: (C)

C is held three months after A.

*75.* Answer: (D)

Two functions are held before F, which is held in Hyderabad.

#### **76.** Answer: (A)

Given statements: C > M > D;  $R \le A = C$ ; K < $D < \Gamma < V$ 

On combining, we get

 $R \le A = C > M > D > K; V > L \ge D < M < C$ Conclusions:

I. A > K: True (As A = C > M > D > K, so A > C

II. V > M: False (AsV > L  $\geq$  D < M, relation between V and M can't be determined)

III. L > C: False (AsL  $\geq$  D < M < C, relation between L and C can't be determined)

Only conclusion I is true.

# Answer: (B)

Given statements:  $C > R \ge D$ ;  $L < C \ge P$ ;  $M < C \ge R$ D > O

On combining, we get

 $P \le C > R \ge D > M$ ;  $O < D \le R < C$ 

Conclusions:

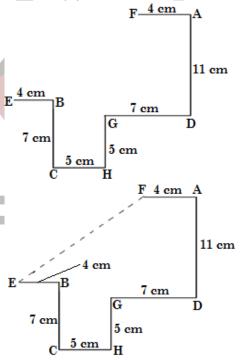
I. M < C: True (As  $C > R \ge D > M$ , so, M < C)

II. O < R: True (As  $O < D \le R$ , so, O < R)

III. P < D: False (As  $P \le C > R \ge D$ , relation between P and D can't be determined)

Only conclusions I and II are true.

#### **78.** Answer: (A)



The shortest distance between E and F

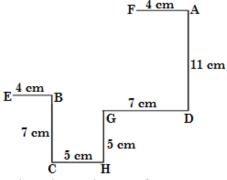
- $=\sqrt{(12)^2+(9)^2}$  cm
- $=\sqrt{(144+81)}$  cm
- $= \sqrt{225} \text{ cm}$
- = 15 cm





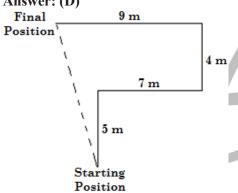


**79.** Answer: (A)



H is to the south-west of A.

80. Answer: (D)



The starting position is to the south-east of the final position.

81. Answer: (C)

> Given statements:  $G > R \ge D < M$ ;  $B \ge L > D$ ; C < G

On combining, we get

 $B \ge L > D \le R < G > C; C < G > R \ge D < M$ 

Conclusions:

I. B > R: False (As B  $\geq$  L > D  $\leq$  R, relation between B and R can't be determined)

II. C < M: False (As  $C < G > R \ge D < M$ , relation between C and M can't be determined) III. G > D: True (As  $D \le R < G$ , so G > D)

Only conclusion III is true.

**82.** Answer: (C)

$$A < D$$
?  $R$ ;  $A \ge G \ge L$ ?  $C$ 

Replacing the signs of option (a) in the given inequality, A < D > R;  $A \ge G \ge L > C$ , it doesn't satisfy the given condition.

Replacing the signs of option (b) in the given inequality,  $A < D \le R$ ;  $A \ge G \ge L \le C$ , it doesn't satisfy the given condition.

Replacing the signs of option (c) in the given inequality, A < D < R;  $A \ge G \ge L = C$ , it satisfies the given condition.

Replacing the signs of option (d) in the given inequality,  $A < D \ge R$ ;  $A \ge G \ge L < C$ , it doesn't satisfy the given condition.

**Directions (83-87):** 

Box Number	Box	Weight (Kg)
8	Q	20
7	R	25
6	T	10
5	P	15
4	W	13
3	S	18
2	V	17
1	U	12

Answer: (B)

Box Q is the topmost box.

84. Answer: (D)

83.

The weight of box U is 12 kg.

85. Answer: (A)

Five boxes are above box S.

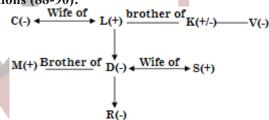
86. Answer: (B)

> The sum of weights of box R, box V and box P = 25 + 17 + 15 = 57

Answer: (E) **87.** 

The weight of box T is 10 kg.

Directions (88-90):



88. Answer: (A)

C is the sister-in-law of K.

**89.** Answer: (D)

S is the son-in-law of L, who is the brother of

90. Answer: (C)

> If K is a female member, then the ratio of female members to male members in the family is 5:3.

Answer: (B)

7963489652

After replacement: 6852378541

Sum of all the even digits = (6 + 8 + 2 + 8 + 4)= 28

92. Answer: (E)

**TEACHINGS** 

EH, EI, CE, CG, HI, NT and GI are the seven pairs which have as many letters between them

in the given word "TEACHINGS" as in the alphabetical series.

#### 93. Answer: (D)

As R is lighter than Q. S is heavier than P. R is not lighter than S. T is lighter than P but not the lightest, so

$$Q > R > S > P > T > U$$

Two persons are heavier than S.

#### 94. Answer: (E)

Given word:

REASONABLY

So, the 2<sup>nd,</sup> 4<sup>th</sup>, 6<sup>th</sup> and 9<sup>th</sup> letters are E, S, N and

LENS is the meaningful word formed from these letters.

#### 95. Answer: (A)

I. Rent, Fry, Fancy

2<sup>nd</sup> letters of each word are E, R and A, English meaningful words formed is EAR.

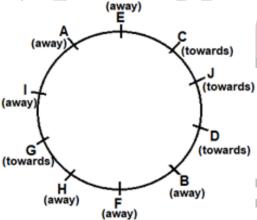
II. Origin, Chair, Plastic

2<sup>nd</sup> letters of each word are R, H and L, so, no English meaningful word is formed.

III. First, Euro, Scent

2<sup>nd</sup> letters of each word are I, U and C, so, no English meaningful word is formed.

# **Directions (96-100):**



96. Answer: (D)

J sits immediate left of C.

97. Answer: (E)

H sits 4<sup>th</sup> to the left of J.

98. Answer: (B)

Both the statement given in I and II are true.

99. Answer: (D)

All are facing same directions except B and D.

100. Answer: (E)

6 persons are facing away from the centre.



Importance: To mark the date of the adoption of Ramsar Convention on wetland on February 02, 1971, in the city of Ramsar, Iran.

**Inception:** 1997

Edition: 25th

It aims at drawing attention to the relevance of promoting biodiversity conservation and sustainable use of natural resources in such an important ecosystem.

2022 Theme: Wetlands Action for People and Nature

Facts: India currently has 27 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 1,056,871 hectares.

Note: Vembanad Lake also known as Vembanad Kayal or Vembanad Kol wetland is the largest wetland in India.



Importance: To mark the establishment of World Cancer Day on 4 February 2000 at the World Cancer Summit in Paris.

Motto: To raise awareness of cancer and to encourage its prevention, detection, and treatment.

Organisation Involved: Union for International Cancer Control (UICC)

Theme: The 2019-2021 campaign theme is 'I Am and I Will'.

The theme seeks to counter the negative attitude and fatalistic belief that nothing can be done about cancer, and instead promotes how our personal actions can be powerful and impactful.









# **SSC CHSL Prelims Solved Paper**

# Reasoning Aptitude

1. Which of the operators given in the options should replace the "\$" (in the same order) in the given expression below: 7\$3\$9\$12

- (A) +, =, -
- (C) +, -, =
- 2. Select the related word/letters/number from the given alternatives.

78: 225 :: 86: ?

- (A) 289
- **(B)** 256
- **(C)** 196
- **(D)** 180
- 3. Find out the odd word/letters/number/number pair from the given alternatives.
  - **(A)** 115
- **(B)** 343

**(C)** 64

- **(D)** 216
- In the following question, select the odd word 9. 4. pair from the given alternatives.
  - (A) Bears Growl
- **(B)** Calves Bleat
- (C) Pigs Grunt
- (D) Whales Pipe
- 5. Find the odd word/letters/number pair from the 10. given alternatives.
  - (A) 36 53
- **(B)** 72 56
- (C) 67 84
- **(D)** 65 48
- 6. In the following question, you are given a figure followed by four alternative figures in options (a), (b), (c) and (d) such that figure in question is 11. embedded in one of them. Trace out the alternative figure which contains fig. in question as its part.



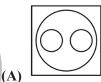






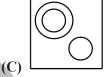
- 7. Find the odd word/letters/number from the given alternatives.
  - (A) Banjo
- (B) Sitar
- (C) Mandolin
- (D) Trumpet
- 8. Identify the diagram that best represents the relationship among the given classes.

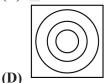
Train, Engine, Coach











Find out the odd word/letters/number/number pair from the given alternatives.

- (A) KO
- (B) FJ
- (C) BE
- (D) PT

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

- J O T ?
- (A) X

(B) Y

(C)Z

**(D)** W

Find out the odd word/letters/number/number pair from the given alternatives.

- (A) SLF
- (B) DEI
- (C) KLW
- (D) CGJ

12. Select the related word/letters/number from the given alternatives.

- CK: EI :: MV: ?
- (A) NO
- **(B)** OU
- (C) PQ
- **(D)** RT
- A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
  - 7 10 22 49 97 ?
  - **(A)** 181
- **(B)** 172





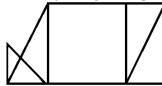








- **(C)** 117
- **(D)** 170
- 14. In a certain code language, 'REHABILATION' is '%@#\$&?+\$!?^\*'. written as 'LIBERATION' written in that code language?
  - (A) +\*\$@%\$!\*??
- **(B)** +?&@%\$!\*?^
- (C) \*\*%@%\$!\*?^
- (D) +\*\$@@\$!\*?\*
- How many triangles are present in the figure? 15.



(A) 9

**(B)** 3

**(C)** 8

- **(D)** 7
- Find the missing number from the given **16.** responses.

respons		
184	(21)	512
462	(30)	378
253	(?)	471

**(A)** 30

**(B)** 42

**(C)** 22

- **(D)** 06
- 17. Which is the second word according to reverse 22. dictionary order?
  - 'Reassurance',
- 'Reattribute', 'Reassertion',
- 'Rebarbative'
- (A) Reassertion
- (B) Reassurance
- (C) Rebarbative
- (D) Reattribute
- **18.** A person starts walking from point A in east direction. After walking 5m he turned right and walked for 4m. He then turned right and walked for 7m. He then turned right and walked for 6m. He then turned left and walked for 4m and stopped at point B. What is the direction of point B with respect to point A?
  - (A) North-east
- (B) East
- (C) West
- (D) North-west
- 19. If a mirror is placed on the line PQ, then which of the answer figures is the right image of the given figure?







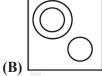


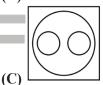


- 20. If in a certain language, INSTAGRAM is coded as "346521728". How is 'MARTIANS' coded in that code?
  - (A) 72753244
- **(B)** 82853245
- **(C)** 82753246
- **(D)** 32753846
- 21. Pointing to Q, P said, "She is the only daughter in law of my mother's only daughter's father's wife." How is P, who is married, related to Q if P has only one sister?
  - (A) Husband
- **(B)** Father
- (C) Uncle
- **(D)** Nephew
- Identify the diagram that best represents the relationship among the given classes.

Tiger, Wild cat, Wolf









23. In the following question, select the missing number from the series.

43	89	115
23	76	65
56	29	?

(A) 82

**(B)** 31

**(C)** 45

**(D)** 74





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24. Which of the operators given in the options 30. should replace the "\*" (in the same order) in the given expression below:

15\*6\*9\*12

- **(A)** =, -, +
- (B) -, -, = (D) +, -, =
- **(C)**  $\times$ , +, =
- A word is represented by only one set of numbers 25. as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown 32. in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 3 and that of Matrix-II are numbered from 4 to 7. A letter from these matrices can be represented first by its 33. column and next by its row, for example, 'F' can be represented as 00 and 'R' can be represented by 03. Similarly, you have to identify the set for the word 'TONIGHT'.

	Matrix-I			
	0	1	2	3
0	F	S	D	Z
1	W	Т	С	Х
2	Н	Q	J	I
3	R	0	Α	N

Matrix-11				
	4	5	6	7
4	T	Р	0	L
5	٧	U	Υ	Т
6	I	E	Н	G
7	В	Α	N	0

- (A) 11, 77, 33, 23, 76, 66, 44
- **(B)** 44, 13, 67, 32, 76, 66, 75
- (C) 44, 77, 33, 45, 76, 66, 44
- **(D)** 11, 13, 67, 54, 76, 66, 65

### **General Studies**

- **26.** Chinese traveler Hiuen Tsang studied at which Indian university for a brief period?
  - (A) Taxila
- (B) Vikramshila
- (C) Nalanda
- (D) Magadh
- 27. Which state government has announced the first agricultural export policy to double the income of farmers?
  - (A) Bihar
- (B) Punjab
- (C) Uttar Pradesh
- (D) Karnataka
- 28. Who is the "Comptroller and Auditor General of India (CAG)" at present?
  - (A) Shashikant Sharma (B) Vijay Kelkar
  - (C) Vikas Swarup
- **(D)** Rajiv Mehrishi
- Which of the following vitamin requires cobalt 40. 29. for its activity?
  - (A) Vitamin B6
- **(B)** Vitamin B12
- (C) Vitamin B1
- **(D)** Vitamin B2

- Who was the editor of newspaper "Young India"?
  - (A) Moti Lal Nehru
- **(B)** Mahatma Gandhi
- (C) Annie Besant
- (D) Sarojini Naidu
- 31. During which decade did the population record a negative growth rate in India?
  - (A) 1901-11
- **(B)** 1911-21
- **(C)** 1921-31
- **(D)** 1931-41
- Glaucoma is a disease of the
  - (A) Kidney
- **(B)** Heart
- (C) Eye
- (D) Skin
- Vulcanization of rubber is carried out by adding which of the following element?
  - (A) Ozone
- (B) Sulphur
- (C) Carbon
- (**D**) Nitrogen
- 34. Which country has terminated the service of its humanoid (human-like) robot 'Fedor' sent for the first time in space?
  - (A) Russia
- (B) Japan
- (C) Nepal
- (D) China
- 35. Headquarters of "World Customs Organisation" is located at which place?
  - (A) Madrid
- **(B)** New York
- (C) Vienna
- (D) Brussels
- 36. "Itai-Itai" disease is caused by which metal?
  - (A) Nickel
- (B) Cadmium
- (C) Lead
- (D) Silicon
- 37. Which among the following was India's first Supercomputer?
  - (A) PARAM Yuva II (B) PRITHVI
  - (C) SAGA
- **(D)** PARAM 8000
- Headquarters of "Botanical Survey of India" is located in which city?
- (A) Dehradun
- (B) Kolkata
- (C) Lucknow
- **(D)** Hyderabad
- 39. Ball pen functions on which principle of Physics?
  - (A) Viscosity
- (B) Charles Law
- (C) Surface Tension
- **(D)** Boyles Law
- Which committee suggested including in the Constitution of 'Fundamental Duties' India?
- (A) Dhar Committee











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38.

- (B) Goswami Committee
- (C) Swaran Singh Committee
- (D) Narasimhan committee
- 41. Who gave the concept of "Total Revolution"?
  - (A) Karl Marx
- **(B)** Mahatma Gandhi
- (C) Manvendra Nath Roy(D) Jaiprakash Narayan
- 42. 'Gol Gumbaz' is one of the largest ircular domes in world. It is situated in which of the Indian state?
  - (A) Gujarat
- (B) Karnataka
- (C) Telangana
- (D) Maharashtra
- 43. Working of the 'Hydraulic Brake' in automobiles is based on which principle?
  - (A) Avogadro's law
- (B) Pascal's law
- (C) Bernoulli's law
- **(D)** Newton's Law
- 44. Karman Kaur Thandi is associated with which sports?
  - (A) Snooker
- (B) Badminton
- (C) Squash
- (D) Tennis
- Who was the author of the book "Ghulam Giri"? 45.
  - (A) Jay Prakash Narayan (B) Jyoti Rao Phule
  - (C) Dinbandhu Mitra Ambedkar
- **(D)** Bhim

Rao

- 46. The Jog Falls is situated on which river?
  - (A) Narmada River
- (B) Krishna River
- (C) Sharavathi River
- (D) Mandovi River
- 47. The split between the Extremists and Moderates factions of Congress came up in the open at the "Surat Congress Session" in year
  - **(A)** 1906
- **(B)** 1907
- **(C)** 1908
- **(D)** 1905
- What does "Overdraft" mean in Banking? 48.
  - (A) Minimum bank balance required for continuation of account.
  - **(B)** Maximum Loan limit.
  - (C) Minimum Deposit needed to open the account.
  - (D) The account holder may withdraw more money than what is in the account.
- 49. What are the major components of cigarette smoke?
  - (A) Carbon Monoxide and Nicotine

- **(B)** Carbon Monoxide and Arsenic
- (C) Carbon Di Oxide and Lithium
- **(D)** Nitrogen Di Oxide and Benzene
- 50. Which of the following river is known as "Dakshin Ganga"?
  - (A) Krishna
- (B) Mahanadi
- (C) Godavari
- (D) Cauvery

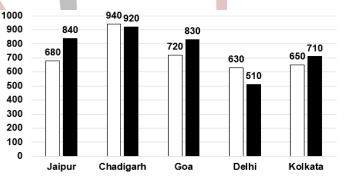
# Quantitative Aptitude

- 51. What will be the net discount percentage of three successive discounts of 30%, 20% and 45%?
  - (A) 74.6%
- **(B)** 69.2%
- **(C)** 62.3%
- **(D)** 51.5%

**Directions (52-55):** Answer the questions based on the information given below.

> The bar graph given below shows the number of houses having less than five floors and the number of houses having more than four floors in five different cities in 2017.

**Note:** Total number of houses in any city = Number of houses having less than five floors + Number of houses having more than four floors.



- □Number of houses having less than five floors
- ■Number of houses having more than four floors
- 52. Total number of houses in Delhi in 2017 is how much percentage less/more than the total number of houses in Jaipur in 2017?
  - **(A)** 10%
- **(B)** 15%
- **(C)** 20%
- **(D)** 25%
- What is the ratio of the total number of houses in 53. Chandigarh in 2017 to the total number of houses in Goa in 2017?
  - (A) 4:3
- **(B)** 6:5
- **(C)** 8:7
- (D) None of these











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- 54. What is the average number of houses having less than five floors in all the five cities in 2017?
  - (A) 716
- **(B)** 720
- **(C)** 724
- **(D)** 728
- 55. In Kolkata number of houses having less than 62. five floors and the number of houses having more than four floors in 2018 are 20% and 10% more than the previous year respectively. Find the total number of houses in Kolkata in 2018.
  - (A) 1561
- **(B)** 1567
- **(C)** 1573
- (D) None of these
- **56.** A, B, and C together started a business with 63. initial investment of Rs. 500, Rs. 1000 and Rs. 1500 respectively. After one year, A, B and C made additional investment of Rs. 1500, Rs. 1200 and Rs. 1300 respectively. If the total profit earned from the business at the end of 2 years 64. was Rs. 7000, then find the profit share of C.
  - (A) Rs. 2600
- **(B)** Rs. 2400
- (C) Rs. 3000
- **(D)** None of these
- Akhil invested Rs. 2600 in a scheme offering 57. simple interest at the rate of 18% p.a. for 90 65. months. Find the interest earned by him after 90 months.
  - (A) Rs. 3870
- **(B)** Rs. 3510
- (C) Rs. 3420
- **(D)** None of these
- **58.** Find the value of 2 sin 510°.
  - **(A)** 1

- **(B)** 2
- **(C)** 1/2
- **(D)** -1
- **59.** If x + y = 7 and xy = 12, then find the value of  $x^3 + y^3$ .
  - **(A)** 189
- **(B)** 100

**(C)** 91

- **(D)** None of these
- **60.** A, B and C together can do a certain piece of work in 12 days. A and B together can complete the same work in 20 days. If C is 20% more efficient than B, then in how many days A alone 68. can complete the whole work?
  - (**A**) 60 days
- **(B)** 36 days
- (C) 52 days
- **(D)** 45 days
- 61. Pipe A and pipe B individually can fill the empty tank in 40 hours and 60 hours respectively. If pipes A, B and outlet pipe C together can fill the

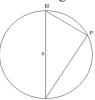
- empty tank in 30 hours, then find the time taken by outlet pipe C alone to empty the whole tank.
- (**A**) 90 hours
- **(B)** 60 hours
- **(C)** 120 hours
- **(D)** None of these
- Himanshu covered one-third of his journey by driving car at a speed of 75 km/hr and remaining journey at a speed of 90 km/hr. What is the total distance covered by him if he covers his entire journey in 8 hours?
  - (A) 640 km
- **(B)** 720 km
- (C) 880 km
- **(D)** 675 km
- What is the volume of a sphere if the radius of the sphere is 8 cm? (Use  $\pi = 3$ )
  - **(A)**  $1940 \text{ cm}^3$
- **(B)**  $2048 \text{ cm}^3$
- (C)  $2136 \text{ cm}^3$
- **(D)**  $2198 \text{ cm}^3$
- A train moving with speed of 90 km/hr crosses a pole and platform in 10 seconds and 25 seconds, respectively. Find the length of the platform.
  - **(A)** 375 meters
- **(B)** 400 meters
- **(C)** 350 meters
- **(D)** None of these
- A boat can cover 140 km upstream and 225 km downstream in 9 hours. If the speed of the boat in still water is 8 times the speed of stream, then find the time taken by the boat to cover 245 km upstream.
  - (A) 7 hours
- **(B)** 8 hours
- (C) 9 hours
- (D) None of these
- Find the value of  $(5^3 + 7^3 + 6^3 630) / \{(6)(5^2 + 6^3 630) / (6)(5^2 + 630) / (6)($ **66.**  $7^2 + 6^2 - 35 - 42 - 30$ .
  - **(A)** 1

**(B)** 0.5

**(C)** 2

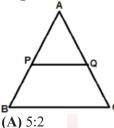
**67.** 

- **(D)** 3
- A ladder is elevated against the wall. The angle of elevation is 30° and the base of the ladder is 2.1 m away from the wall. Find the length of the ladder.
  - **(A)**  $1.4\sqrt{3}$  m
- **(B)**  $2.1\sqrt{3}$  m
- **(C)** 2.1 m
- (D) None of these
- Find the value of angle MNP, if the respective ratio of angle MNP to angle NMP is 3:2.



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- (A)  $48^{\circ}$
- **(B)**  $54^{\circ}$
- (C)  $45^{\circ}$
- **(D)**  $60^{\circ}$
- 69. The given figure, ABC is the triangle. PQ is parallel to BC. If the ratio of the area of the triangle APQ to the area of the triangle ABC is 9:16, then find the ratio of the length of AP to the length PB.



- **(B)** 4:1
- **(C)** 3:1

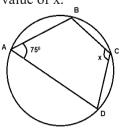
- (D) None of these
- **70.** If the sum of all the interior angles of a regular polygon is 1260°, then find the exterior angle formed by two adjacent sides.
  - (A)  $20^{\circ}$
- **(B)**  $40^{\circ}$
- (C)  $50^{\circ}$
- **(D)**  $60^{\circ}$
- A ladder is inclined to the wall at an angle of 30° from the ground and touches the wall at a height of 14 m from the ground. Find the length of the ladder.
  - **(A)**  $14\sqrt{2}$  m
- **(B)** 28 m
- **(C)** 32 m
- **(D)**  $32\sqrt{2}$  m
- Find the value of  $[{(\sin x \sin y)/(\cos x + \cos y)}]$ 72. y)} +  $\{(\cos x - \cos y)/(\sin x + \sin y)\}$ ].
  - (A) -2

**(B)** -1

**(C)** 1

- **(D)** 0
- 73. Water and alcohol are mixed in an empty container in the ratio of 7:2, respectively. If 45 ml of mixture is replaced with 15 ml of water then, the ratio of water to alcohol becomes 4:1, respectively. Find the amount of water mixed initially.
  - **(A)** 140 ml
- **(B)** 210 ml
- **(C)** 70 ml
- **(D)** 105 ml
- 74. Anil distributed Rs. 240 among Rohit, Shobhit and Mohit in the ratio 4:3:5, respectively. Mohit gives 60% of the amount he received to Samay and 40% of the remaining amount to Vishal. Find the amount left with Mohit.
  - (A) Rs. 32
- **(B)** Rs. 24

- **(C)** Rs. 20
- **(D)** Rs. 16
- In the given figure, ABCD is a cyclic 75. quadrilateral such that angle BAD =  $75^{\circ}$ . Find the value of x.



- (A)  $75^{\circ}$
- **(B)** 105°
- (C)  $95^{\circ}$
- **(D)** 85°

## English Language

- **Direction (76-80):** In the question below, an idiom is given, followed by four options. Select the option that gives the correct meaning of the idiom.
- Bite the bullet
  - (A) to finish a task successfully
  - **(B)** decide to do a difficult or unpleasant task that one has been avoiding
  - (C) to die unexpectedly at a young age
  - (D) to begin a task that requires knowledge that one does not have
- 77. Go back to the drawing board
  - (A) to start again from the beginning
  - (B) to have one's first day at a new job
  - (C) to make a mistake in the first step of a task or activity
  - (D) to learn something from its basics
- The elephant in the room
  - (A) a recurrent problem
  - **(B)** the unseen negative consequences of something
  - (C) the costs incurred in taking an extreme step
  - **(D)** a big issue that people have been avoiding
- **79.** Cut the mustard
  - (A) to fulfil expectations and do a good job
  - **(B)** to reduce expenses
  - (C) to understand the details of an extensive subject
  - (D) to come to the main point of a discussion
- 80. Clouds on the horizon
  - (A) unpleasant weather











- (B) trouble ahead
- (C) unpredictable nature of someone
- (D) additional expenditure
- **Direction** (81-85): In the following question, a sentence has been given in Direct/ Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/ Direct speech.
- "I shall never forgive Gilbert Blythe," said Anne. 81.
  - (A) Anne said that she would never forgive Gilbert Blythe.
  - (B) Anne said that she should never forgive Gilbert Blythe.
  - (C) Anne said that she would never forgave Gilbert Blythe.
  - (D) Anne said that I would never forgive Gilbert Blvthe.
- "Did you hear what I said?" the man said to me. **82.** 
  - (A) The man asked me if I heard what he said.
  - (B) The man asked me if I heard what he had said.
  - (C) The man asked me if I heard what he said.
  - (D) The man asked me if you had heard what he had said.
- 83. "It is sure to bring us good fortune," said Mary.
  - (A) Mary said that it was sure to bring them good fortune.
  - (B) Mary said that it was sure to bring us good
  - (C) Mary said that it is sure to bring them good fortune.
  - (D) Mary said that it was sure to brought them good fortune.
- 84. "Read the writing on the other side," said John to his brother.
  - (A) John told his brother to read the writing on 87. the other side.
  - **(B)** John told his brother to had read the writing on the other side.
  - (C) John told his brother read the writing on the
  - (D) John told his brother to having read the 89. writing on the other side.
- 85. "How were we in the same boat?" said the man.

- (A) The man asked how we had been in the same boat.
- (B) The man asked how they had been in the same boat.
- (C) The man asked how they were in the same boat.
- (D) The man asked how had they been in the same boat.
- **Directions (86-90):** In the following passage, some of the words have been left out and replaced by a blank represented by an alphabet. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.
  - They have long been (86)with the image of knuckle-dragging, thick-skulled brutes—but more recent evidence tells another story. In recent years, studies have shown that Neanderthals produced art, their dead and even used toothpicks to clean between their teeth, just like their Homo sapiens neighbours. Now research, released in the journal Nature Ecology & Evolution, adds another piece of evidence to the pile. It is believed, scientists say, that Neanderthals hunted : they planned, cooperated and moved as a pack, armed with spears. By analyzing the bones of two 120,000-year-old deer, scientists say they now understand how Neanderthals may have used these weapons to (89)and kill their prey. The bones of the animals are scored with cut marks, or "hunting lesions," with at least one delivered from the of a wooden spear at (90)low velocity.
- 86. (A) maligned
  - (B) commended
  - (C) dispersed
- **(D)** defamation
- (A) grieved (C) alarmed
- (B) mourned **(D)** pruned
- **(B)** altogether
- (A) conducively (C) collectively
- (D) herd
- (A) hunted
- **(B)** persuade
- (C) pursuing
- (D) stalk
- (A) blowed
- (B) impact
- (C) tussle
- (D) descent











88.

90.



- **Direction (91-95):** In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select 95. the appropriate option. If a sentence is free from error, select 'No Error'.
- 91. Intercity telephone networks had been cut and (1)/ the engineers and workers at the nuclear plant had been prohibited from (2)/ sharing news of what have happened with their friends or relatives. (3)/ No error (4)
  - **(A)** 1

**(B)** 2

**(C)** 3

- **(D)** 4
- 92. The columns of buses that had been waiting on (1)/ the roads among the towns of Chernobyl and Prypiat for hours, (2)/ absorbing high levels of radiation, began to move at 1:30 a.m. (3)/ No 97. error (4)
  - **(A)** 1

**(B)** 3

**(C)** 4

- **(D)** 2
- 93. It is recommended that people took documents, (1) absolutely necessary items and food products
  - (2)/ to meet immediate needs. (3)/ No error (4)
  - (A) 2

**(B)** 1

**(C)** 4

- **(D)** 3
- Nuclear technology was something valuable (1)/ 94. and new, and it conferred a certain status to (2)/ countries that had it and knew how to wield it. (3)/ No error (4)
  - (A) 4

**(B)** 3

- **(C)** 2
- **(D)** 1
- Iranian nuclear development remain international concern, (1)/ especially now that Trump has withdrawn the U.S. from the 2015 Iranian nuclear deal, (2)/ known as the Joint Comprehensive Plan of Action. (3)/ No error (4)
  - (A) 2

**(B)** 4

**(C)** 3

**(D)** 1

**Direction (96-100):** In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

- A full size model of a human figure
  - (A) Manuscript
- **(B)** Malingerer
- (C) Maxim
- (D) Mannequin
- One who is very frugal in spending money or resources
  - (A) Miser
- (B) Morgue
- (C) Monotheist
- **(D)** Monopoly
- Murder of one's own parents
  - (A) Regicide
- (B) Sororicide
- (C) Fratricide
- (D) Patricide
- 99. Fear of enclosed spaces
  - (A) Agoraphobia
- **(B)** Claustrophobia
- **(C)** Hydrophobia
- (D) Acrophobia

**100.** The art of cultivating and managing gardens

- (A) Horticulture
- (B) Sericulture
- (C) Pisciculture
- (D) Floriculture

# **Solution**

# Reasoning Aptitude

The correct use of operators would be  $\times$  = Ans.5(B) **Ans.1(B)** and

+ respectively.

 $7 \times 3 = 9 + 12$ 

As, the digits of (78) is added and then Ans.2(C) squared.

Similarly, 86 will give 196.

- As, all numbers are perfect cube number Ans.3(A) except 115.
- Ans.4(D) In all the given pairs except option (d), the associated with each creature is given.

However, whales - sing.

- (1) 53 36 = 17
- (2) 72 56 = 16 (odd)
- (3) 84 67 = 17
- **(4)** 65 48 = 17

In all the option except (b), the difference between both the number is same i.e. 17.



Banjo, Sitar and Mandolin are string instruments







**Ans.6(C)** 

**Ans.7(D)** 



while Trumpet is a brass instrument.

Ans.8(A)



Now, there are three alphabets between the **Ans.9(C)** 

and last alphabet of the option except in BE.

**Ans.10(B)** Here, as J, O and T represents the multiple according to dictionary order. Therefore, the next alphabet would be Y.

Ans.11(A) As in each option, the sum of number 2<sup>nd</sup> alphabet representing 1st and represented by the third alphabet.

**Ans.12(B)** As, the vowels between C and K are E and Similarly, the vowels between M and V are and U.

Ans.13(B) The pattern followed here is,  $7 + 1 \times 3 = 10$  $10 + 2 \times 6 = 22$  $22 + 3 \times 9 = 49$  $49 + 4 \times 12 = 97$  $97 + 5 \times 15 = 172$ 

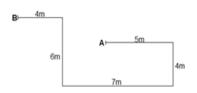
Ans.14(B) The code for 'LIBERATION' would be '+?&@%\$!\*?^'.

**Ans.15(D)** There are 7. triangles in the figure.

**Ans.16(C)**  $184 \square \square 1 + 8 + 4 = 13$  $512 \square \square 5 + 1 + 2 = 8$ 13 + 8 = 21 $462 \square \square 4 + 6 + 2 = 12$  $378 \square 3 + 7 + 8 = 18$ 12+18=30 $253 \square 2 + 5 + 3 = 10$  $471 \square 4 + 7 + 1 = 12$ 10 + 12 = 22

**Ans.17(D)** The words in order of dictionary are 'Reassertion', 'Reassurance', 'Reattribute', Ans.26(C) Prince of Pilgrims was the name attributed 'Rebarbative'.

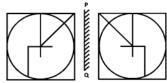
Ans.18(D)



**Ans.19(C)** 

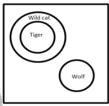
**Ans.22(B)** 

Ans.25(B)



Ans.20(C) In INSTAGRAM, I represents 3, N represents 4, S represents 6, T represents 5, A represents 2, G represents 1, R represents 7, M represents 8. So, 'MARTIANS' would be coded as '82753246'.

**Ans.21(A)** P is husband of Q.



Ans.23(D) The pattern followed here is, The number in [Row 1, Column 3]  $= 43 + [8 \times 9] = 115$ The number in [Row 2, Column 3]  $= 23 + [7 \times 6] = 65$ The number in [Row 3, Column 3]  $= 56 + [2 \times 9] = 74$ 

**Ans.24(D)** The correct use of operators would be +, and = 15 + 6 - 9 = 12.

Now, T is represented by '11', '75', '44', O is represented by '64', '77', '13'. N is represented by '33', '67'. I is represented by '32', '46'. G is represented by '76', H is represented by '66', '02'.

Here, 'TONIGHT' is represented by '44, 13, 67, 32, 76, 66, 75'.

# General Studies

to Hiuen Tsang. Hsuan Tsang studied at Nalanda for 15 months.

Ans.27(C) The UP government has set a target of doubling exports of agricultural products by the year 2024. For this, several steps will be taken to encourage farmers and entrepreneurs. The state government has





- from contracted farmers and sharecroppers with certain conditions. Now the products of the farmers will be prepared according to the world market standards.
- Ans.28(D) CAG stands for 'Comptroller and Auditor Ans.38(B) General of India'. This auditor general is appointed by the President of India. The current CAG of India is Rajiv Mehrishi. He was appointed in 2015. He is the 13th CAG of India.
- Ans.29(B) Vitamin B12 is a nutrient that helps keep the body's nerve and blood cells healthy and helps make DNA, the genetic material in all cells. Vitamin B12 also helps prevent a type of anemia called megaloblastic anemia that makes people tired and weak. Cobalt is found at the centre of vitamin B12 and a range of other co-enzymes called cobalamins. Even though the body contains only 2-5 mg of vitamin B12, its involvement in the production of red blood cells means it is vital to life.
- Ans.30(B) Young India was a weekly paper or journal - in English published by Mohandas Karamchand Gandhi from 1919 to 1931.
- Ans.31(B) 1911-21 experienced a negative rate of growth. The percent decadal variation was - 0.31% which was the lowest during the whole census history.
- Ans.32(C) Glaucoma is a complex disease in which damage to the optic nerve leads to progressive, irreversible vision loss.
- Vulcanization of rubber is a process of Ans.42(B) Ans.33(B) improvement of the rubber elasticity and strength by heating it in the presence of sulphur.
- Ans.34(A) It was sent to the International Space Station (ISS) via the Soyuz MS-14 spacecraft launched on 22 August. Robots cannot fulfill their assigned task to divert human astronauts on long and risky spaceways. Fedor, or the last experimental demonstration object research, was created to assist astronauts of the space station.
- of "World Ans.35(D) Headquarters Customs Organisation" is located in Brussels, Belgium.
- Ans.36(B) Cadmium, a waste product from several Ans.45(B) industrial processes, is the cause of 'itaiitai'("ouch-ouch") disease.

- also given permission to purchase paddy Ans.37(D) Supercomputer PARAM 8000 (made by the Centre for Development of Advanced Computing (C-DAC)) was launched on July 1, 1991 is considered India's first supercomputer.
  - Botanical Survey of India (BSI), founded on 13 February 1890, is Government of India's organization for survey, research and conservation of plant resources, flora endangered species of India. Headquarters of organization is located in Kolkata, West Bengal.
  - Ans.39(C) Ball pen functions on the principle of surface tension. Pen is fitted with a tiny ball bearing in its tip. As the pen moves along the paper, the ball rotates picking up ink from the ink cartridge and leaving it on the paper.
  - **Ans.40(C)** The 'Fundamental Duties' of citizens were added to the Constitution by the 42nd 1976, Amendment in upon recommendations of the Swaran Singh Committee.
  - The Bihar Movement was a movement Ans.41(D) initiated by students in Bihar in 1974 and led by the veteran socialist Jayaprakash Narayan, popularly known as JP, against misrule and corruption in the government of Bihar. It later turned against Prime Minister Indira Gandhi's government in the central government. It was also called Sampoorna Kranti (Total Revolution Movement) and JP Movement.
    - Gol Gumbaz is a tomb of Adil Shah in Bijapur, Karnataka. Its circular dome is said to be the second largest in the world after St. Peter's Basilica in Rome.
  - Ans.43(B) Pascal's law states that increase in pressure at a point in the enclosed liquid in equilibrium is transmitted equally in all directions in liquid and to the Walls of the container. The working of hydraulic lift, hydraulic press and hydraulic brakes are based on Pascal's law.
  - Karman Kaur Thandi recently became the Ans.44(D) sixth Indian woman tennis player to crack the top-200 rankings in singles; ranked 195th.
  - The famous book "Ghulam Giri" was written by Jyoti Rao Phule (Mahatma), a







great social reformer from state of Maharashtra.

- **Ans.46(C)** Jog Falls, Gerosoppa Falls or Joga Falls is **Ans.54(C)** Desired average = (680 + 940 + 720 + 630)one of the highest plunge waterfalls in Sharavathi River.
- Ans.47(B) The Indian National Congress (INC) which was established in 1885 was divided into two groups (in the year 1907) mainly by extremists and moderates at the Surat Session of the Congress.
- Ans.48(D) Overdraft means the act of withdrawing more money from bank account than it has deposited in it.
- Ans.49(A) There are thousands of chemicals in cigarette smoke. Nicotine is perhaps the chemical that is most commonly associated with cigarette smoke. This naturally occurring compound in the tobacco plant is responsible for making cigarette smoking highly addictive. Carbon monoxide and hydrogen cyanide are another 2 highly Ans.59(C) toxic chemicals found in cigarette smoke. Carbon monoxide is a colorless and odourless gas that is released when tobacco smokers gasp for their breath after only light exercise.
- Ans.50(C) Godavari river is known as "Dakshin Ganga" since it is the largest peninsular river like the large Himalayan river. It is like the Ganga river in the south thus it is also called Dakshin Ganga.

# Quantitative Aptitude

- **Ans.51(B)** On applying three successive discounts of 30%, 20% and 45%, remaining portion
  - $= (70/100) \times (80/100) \times (55/100)$
  - = 308000/1000000 or 30.8.%

Thus, the net discount percentage

=(100-30.8)%=69.2%

Ans.52(D) Total number of houses in Delhi in 2017 = 630 + 510 = 1140

> Total number of houses in Jaipur in 2017 =680 + 840 = 1520

Desired percentage = (1520 - 1140)/1520

 $\times$  100 = 3800/152 = 25%

Total number of houses in Chandigarh in Ans.53(B) 2017

= 940 + 920 = 1860

Total number of houses in Goa in 2017

= 720 + 830 = 1550

Desired ratio = 1860: 1550 = 6:5

- +650)/5 = 3620/5 = 724
- India. Jog Falls is created by the Ans.55(A) Number of houses having less than five floors in Kolkata in  $2018 = 1.20 \times 650 =$ 780

Number of houses having more than four floors in Kolkata in  $2018 = 1.10 \times 710 =$ 

So, the total number of houses in Kolkata in 2018 = 780 + 781 = 1561

- Ans.56(D)
- Ans.57(B) Time period = 90 months = 7.5 yearsInterest earned by Akhil =  $2600 \times 0.18 \times$ 7.5

= Rs. 3510

Ans.58(A)  $2 \sin 510^{\circ} = 2 \sin (360 + 150)^{\circ}$ 

 $= 2 \sin 150^{\circ}$ 

 $= 2 \sin (180 - 30)^{\circ}$ 

 $= 2 \sin 30^{\circ} = 2 \times 1/2 = 1$ 

 $(x + y)^3 = x^3 + y^3 + 3x^2y + 3xy^2$ 

 $= x^3 + y^3 + 3xy(x + y)$ 

 $x^3 + y^3 = (x + y)^3 - 3xy(x + y)$ 

 $= 7^3 - 3 \times 12 \times 7 = 343 - 252 = 91$ 

is burned. It is the reason why a lot of Ans.60(D) Let the total work = 60 units (LCM of 12) and 20)

Amount of work done by A, B and C together in one day = 60/12 = 5 units Amount of work done by A and B together in one day = 60/20 = 3 units

Amount of work done by C alone in one day

= 5 - 3 = 2 units

Amount of work done by B alone in one

= 2/1.2 = 5/3 units

Amount of work done by A alone in one

= 3 - 5/3 = 4/3 units

Required time taken by A alone to complete the work = 60/(4/3) = 45 days

Let the capacity of the tank = 120 liters Ans.61(C) (LCM of 40 and 60)

> Amount of water filled by pipe A alone in one hour = 120/40 = 3 liters

> Amount of water filled by pipe B alone in

one hour = 120/60 = 2 liters

Amount of water filled by pipes A, B and C together in one hour = 120/30 = 4 liters











Amount of water taken out by pipe C alone in one hour = 3 + 2 - 4 = 1 liter

Time taken by pipe C alone to empty the tank

= 120/1 = 120 hours

**Ans.62(D)** Let the total journey covered be 'x' km. (x/3)/75 + (2x/3)/90 = 8720x = 486000

x = 675

Required total distance = 675 km

**Ans.63(B)** Required volume =  $4/3 \pi r^3$ , where r is the radius of the sphere.  $= 4/3 \times 3 \times 8^3 = 2048 \text{ cm}^3$ 

**Ans.64(A)** Speed of the train =  $(90 \times 5)/18$ = 25 m/sLength of the train =  $25 \times 10$ = 250 meters

Let the length of the platform be 'x' meters According to question,

 $25 \times 25 = 250 + x$ 625 = 250 + xx = 375 meters

So, the length of the platform is 375 meters.

**Ans.65(A)** Let the speed of the stream be 'x' km/h So, the speed of the boat in still water = '8x' km/h

Downstream speed of the boat = (8x + x) = 9x km/h

Upstream speed of the boat = (8x - x) = 7xkm/h

According to question, (140/7x) + (225/9x) = 9

(20/x) + (25/x) = 945/x = 9, x = 5

So, the upstream speed of the boat

 $= 7 \times 5 = 35 \text{ km/h}$ 

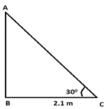
Required time taken to cover 245 km

upstream

= 245/35 = 7 hours

**Ans.66(D)**  $(5^3 + 7^3 + 6^3 - 630) / \{(6)(5^2 + 7^2 + 6^2 - 35)\}$ -42-30) $= \{(5+7+6)(5^2+7^2+6^2-35-42-30)\}$  $/\{(6)(5^2+7^2+6^2-35-42-30)\}$ =(5+7+6)/6= 18/6 = 3

Ans.67(A)



Let AB and AC be the wall and the length of ladder respectively.

Given, BC = 2.1 meter

 $\cos 30^{\circ} = BC/AC$ 

 $\sqrt{3/2} = 2.1/AC$ 

 $AC = 4.2/\sqrt{3} = 1.4\sqrt{3}$  meter

So, length of ladder =  $1.4\sqrt{3}$  meter

Ans.68(B) As per Thales theorem,

Angle MPN =  $90^{\circ}$ 

In  $\triangle$ MPN,

Let the angle MNP and angle NMP be 3x and 2x, respectively.

Therefore,  $3x + 2x + 90^{\circ} = 180^{\circ}$ 

 $5x = 90^{\circ}$ 

 $x = 18^{\circ}$ 

Angle MNP =  $54^{\circ}$ Ans.69(C)

As PQ is parallel to AB

So, triangle APQ ~ triangle ABC

So,  $(\sqrt{\text{Area of triangle APQ}})/(\sqrt{\text{Area of }})$ 

triangle ABC) = AP/AB

 $\sqrt{9}/\sqrt{16} = AP/(AP + PB)$ 

3/4 = AP/(AP + PB)

3AP + 3PB = 4AP

AP = 3PB

AP: PB = 3:1

Ans. 70(B) Let the number of sides of the regular polygon be 'n'.

So  $(n-2) \times 180^0 = 1260^0$ 

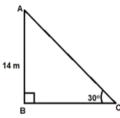
n-2=7, n=9

So, the interior angle formed by adjacent

sides =  $1260^{\circ} \div 9 = 140^{\circ}$ 

So, the exterior angle =  $180^{\circ} - 140^{\circ}$ 

 $=40^{0}$ 



 $\sin 30^0 = AB/AC$  $\frac{1}{2} = \frac{14}{AC}$ 

AC = 28 m

Ans.71(B)

- **Ans.72(D)**  $\{(\sin x \sin y)/(\cos x + \cos y)\} + \{(\cos x + \cos y)\}$  $-\cos y$ /( $\sin x + \sin y$ )}]  $= \{(\sin^2 x - \sin^2 y) + (\cos^2 x - \cos^2 y)\}/\{(\cos^2 x - \cos^2 y)\}$ Ans.80(B)  $x + \cos y(\sin x + \sin y)$  $= \{(\sin^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 y)\} / \{(\cos^2 x + \cos^2 x) - (\sin^2 y + \cos^2 x) - (\sin^2 x + \cos^2 x) - (\cos^2 x + \cos^2$  $x + \cos y(\sin x + \sin y)$ = 0
- Ans.73(A) Let, amount of water and alcohol mixed initially be '7x' ml and '2x' ml, respectively. So, (7x - 35 + 15)/(2x - 10) = 4/17x - 20 = 8x - 40So, the amount of water mixed initially = 7x = 140 ml
- **Ans.74(B)** Amount received by Mohit  $= 5/12 \times 240 = \text{Rs. } 100$ Amount received by shyam = 60% of 100 = Rs 60Amount received by Vishal = 40% of 40 = Rs. 16Amount left with Mohit = 40 - 16= Rs. 24
- Ans.75(B) Sum of opposite angles of a cyclic quadrilateral = 180° So,  $75^{\circ} + x = 180^{\circ}$  $x = 105^{\circ}$

## English Language

- Ans.76(B) The idiom 'bite the bullet' means to do a pending task that one did not want to do due to its being difficult or unpleasant. E.g. Talking to Jane really annoys me, but now that I need her help, I suppose I will have to bite the bullet.
- Ans.77(A) The idiom 'go back to the drawing board' means to begin something from the starting point. E.g. After the policy failed miserably in achieving the expected results, the committee decided to go back to the drawing board and devise a new one.
- The idiom 'elephant in the room' refers to a Ans.78(D) big issue or problem that people are aware of but are avoiding. E.g. It is time we addressed the elephant in the room - when will Joey get a job and move out of his parents' home
- Ans.79(A) The idiom 'cut the mustard' means to satisfy expectations and finish a task successfully. E.g. By securing a stable and well-paying job at a multi-national

company, Ravi cut the mustard and earned the appreciation of his family.

- The idiom 'clouds on the horizon' refers to impending trouble or problems. E.g. The friction between the manager and the employees shows that there are clouds on the horizon.
- The sentence is in direct speech and in indicative mood. To convert this sentence to the indirect speech, follow these rules:

Ans.81(A)

Ans.82(C)

- 1. Remove the comma and the inverted commas.
- 2. Begin the indirect speech sentence with the reporting speech clause ANNE SAID.
- 3. The first person subjective pronoun I will change to the third person subjective SHE.
- 4. Replace SHALL with WOULD. The modal verb SHALL changes to WOULD when converting direct to indirect speech. Modal verbs such as SHALL, SHOULD, WOULD, CAN, etc. always use the base form of the main verb after them, so FORGIVE will not change form.
- The sentence is in direct speech and in interrogative mood. To convert this sentence to the indirect speech, follow these rules:
- 1. Remove the question mark and the inverted commas.
- 2. Replace the reporting verb SAID TO with ASKED. The preposition TO is redundant after ASKED, so it is to be removed. Begin the indirect speech sentence with the reporting speech clause THE MAN ASKED ME.
- 3. Put IF between the reporting and reported speeches.
- 4. The simple past tense HEARD and SAID will change to the past perfect tense **HEARD** and HAD HAD SAID respectively.
- 5. The second person subjective pronoun YOU and the first person subjective pronoun I will change to the first person objective pronoun I and the third person subjective pronoun HE respectively.
- **6.** The syntax of a sentence in indicative mood will be used: THE MAN ASKED ME + IF + subject (I) + verb clause (HAD)











HEARD) + object of verb (WHAT HE HAD SAID).

7. The simple past tense DID HEAR and SAID will change to the past perfect tense **HEARD** HAD HAD and SAID respectively.

- Ans.83(A) The sentence is in direct speech and in indicative mood. To convert this sentence to the indirect speech, follow these rules:
  - 1. Remove the comma and the inverted commas.
  - **2.** Begin the indirect speech sentence with the reporting speech clause MARY SAID.
  - 3. Put THAT between the reporting and reported speeches.
  - **4.** The simple present tense IS will change to the simple past WAS. The infinitive construction TO BRING will remain unchanged.
  - 5. The first person plural objective pronoun US will change to the third person plural objective pronoun THEM.
- The sentence is in direct speech and in Ans.84(A) imperative mood (command, request or exclamation). To convert this sentence to the indirect speech, follow these rules:
  - 1. Remove the comma and the inverted commas.
  - 2. Change the reporting verb SAID to TOLD. The preposition TO is redundant after TOLD, so it will be removed. Begin the indirect speech sentence with the reporting speech clause JOHN TOLD HIS BROTHER.
  - 3. For an instruction or command, the infinitive construction TO + VERB is used in the indirect speech sentence. So, TO READ will be used.
- The sentence is in direct speech and in Ans.85(B) interrogative mood. To convert this Ans.89(D) sentence to the indirect speech, follow these rules:
  - 1. Remove the question mark and the inverted
  - 2. Change the reporting verb SAID to ASKED. Begin the indirect speech sentence with the reporting speech clause MAN THE ASKED.
  - 3. The simple past tense WERE will Ans.90(B) change to the past perfect tense HAD BEEN.

- 4. The first person plural subjective pronoun WE will change to the third person plural subjective pronoun THEY.
- 5. The syntax of a sentence in indicative mood will be used: THE MAN ASKED + interrogative pronoun (HOW) + subject (THEY) + verb clause (HAD BEEN) + object of verb (IN THE SAME BOAT).

We need a verb here in its past participle form to fit in with the passive voice construction HAVE + BEEN + VERB. Also, we need a word with a negative meaning as the context of the sentence talks about undesirable qualities of Neanderthals.

Maligned - to spoil the image of someone. Commend - praise. Disperse - spread. Defamation - the act of damaging the reputation of someone. B carries a positive meaning, so it is incorrect. C does not make contextual sense. D is a noun.

We need a verb here, as the sentence is talking about an event that took place in Grieved/ mourned - expressed sorrow about. Alarmed - frightened. Pruned - cut into shape. A is incorrect as it will take the preposition 'for' after it. C and D do not make contextual sense.

We need an adverb here to modify the verb Ans.88(C) HUNTING and one that is suitable for describing hunting practices.

> Conducively - helpfully. Collectively together. A does not make contextual sense. D is a noun so it is incorrect. B would have been correct if it had been 'all together' or 'together'. But ALTOGETHER means completely or totally, which would render little meaning here.

We need a verb here in the base form to fit in with the infinitive construction TO + VERB.

Persuade - convince. Pursue - chase. Stalk - follow. A and C are incorrect as they are not in their base form; they should have been hunt and pursue respectively, in order to be correct. B does not render contextual meaning.

We need a noun here, as indicated by the definite article THE before it; articles are used only to modify nouns. Impact - strike.

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Ans.86(A)

Ans.87(B)

incorrect as it is a verb. C and D are contextually incorrect, as they do not lend meaning to the passage.

HAPPENED.

The sentence uses the past perfect tense at all instances (HAD BEEN CUT, HAD BEEN PROHIBITED). Additionally, the sentence is talking of news of a single incident, so the plural HAVE will be incorrect.

Ans.92(D) Replace AMONG with BETWEEN. We use BETWEEN when referring to two persons, places or things, and AMONG when referring to more than two persons, places of things. Since the sentence is talking of only two towns, Chernobyl and Prypiat, BETWEEN will be used.

Ans.93(B) Replace TOOK with TAKE. When the sentence talks about recommendations/ suggestions, and the syntax IT IS RECOMMENDED is used, we always use the base form of the main verb.

Ans.94(C) Replace TO with ON, as the verb CONFERRED always takes the preposition ON after it.

Ans.95(D) Replace REMAIN with REMAINS. There is a subject-verb agreement in part 1.. The subject NUCLEAR DEVELOPMENT will assume the singular form, and take the singular form of the verb REMAINS.

**Ans.96(D)** Manuscript – a document written by hand. Malingerer – a person who abandons his duty. Maxim – a saying or principle.

**Ans.97(A)** Morgue – a place where dead bodies are kept for identification. Monotheist - a person who believes in only one god. Monopoly – the sole possession or control over the supply of something.

**Ans.98(D)** Regicide – murder of a king. Sororicide – killing of one's sister. Fratricide – killing of one's brother or sister.

> People who succeed have momentum. The more they succeed, the more they want to succeed, and the more they find a way to succeed.

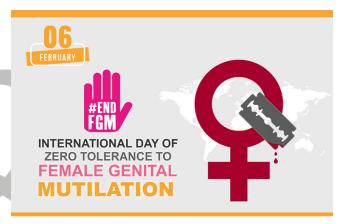
Tussle - conflict. Descent - decrease. A is Ans.99(B) Agoraphobia - fear of open or public places.

Hydrophobia – fear of water.

Acrophobia – fear of heights.

Ans.91(C) Replace HAS HAPPENED with HAD Ans.100(A) Sericulture – production of silk and rearing of silkworms.

> Pisciculture – breeding and rearing of fish. Floriculture – cultivation of flowers.



What is Female genital mutilation (FGM)?

It comprises all procedures that involve altering or injuring the female genitalia for non-medical reasons and is recognized internationally as a violation of the human rights, the health and the integrity of girls and women.

Importance: On February 6, 2003, Stella Obasanjo, the First Lady of Nigeria and spokesperson for the Campaign Against Female Genital Mutilation, made the official declaration on "Zero Tolerance to FGM" in Africa.

Inception: 2003

Edition:19th

Motto: To amplify and direct the efforts on the elimination of female genital mutilation

Organisation Involved: UNGA

2022 Theme: No time for Global Inaction, Unite, Fund and Act of end Female Genital

Note: In 2012, the UN General Assembly designated February 6th as the International Day of Zero Tolerance for Female Genital Mutilation.

> "Successful people do what unsuccessful people are not willing to do. Don't wish it were easier; wish you were better."









# **RRB NTPC Mains Solved Paper**

# General Awareness

- Which social media platform has recently 1. launched two cyber safety campaigns named "Safe Stree" and "My Kanoon"?
  - (A) SnapChat
- **(B)** Instagram
- (C) Facebook
- (D) Twitter
- 2. Which Ministry of New and Renewable Energy has issued guidelines for starting a scheme of Rs 34,422 crore?
  - (A) PM-Kusum Scheme
  - (B) PM-Housing Scheme
  - (C) PM-Jan Health Plan
  - (D) PM-Jan Dhan Yojana
- Who has given the post of Home Minister to the 3. new British Prime Minister Boris Johnson in his cabinet?
  - (A) Sajid Javid
- (B) Preeti Patel
- (C) Rahul Sachdeva
- (D) Navtej Sarna
- 4. In which city did Prime Minister Narendra Modi announce the creation of a museum in memory of all the former Prime Ministers?
  - (A) Mumbai
- (B) Hyderabad
- (C) Chennai
- (D) Delhi
- Who has been named as the fourth Deputy 5. Governor of the Reserve Bank of India?
  - (A) Saurav Sinha
- (B) Mridul Saggar
- (C) Vivek Deep
- (D) T Rabi Sankar
- After the Oppo mobile on Team India, which 6. company has bought the rights to display the name?
  - (A) Byju's
- (B) Redmi
- (C) OLX
- **(D)** TATA
- Which state has become first in the country to 7. have metro facilities in five districts?
  - (A) West Bengal
- **(B)** New Delhi
- (C) Uttar Pradesh
- (D) Kerala
- Which of the following educational institutions 8. has launched an AI app called CARE4U for the elderly?
  - (A) IIT Madras
- (B) IIT Kharagpur

- (C) IIT Delhi
- (D) IIT Kanpur
- On which day is the Income-tax Day celebrated every year in India?
- (A) July 22
- **(B)** July 23
- **(C)** July 24
- **(D)** July 25
- "Clean Green Village week" has been observed under which scheme?
  - (A) DDU GKY
- (B) DAY NRLM
- (C) DAY NULM
- (D) MGNREGS
- 11. World Meteorological Organization, a non governmental organization is headquartered in?
  - (A) Geneva, Switzerland
  - (B) Vienna, Austria
  - (C) Washington DC, United State
  - (D) Lyon, France
- 12. What is the name of the famous meteor shower that occurs every year in November?
  - (A) Leonids Meteor Shower
  - **(B)** Perseid meteor shower
  - (C) Orionids Meteor Shower
  - **(D)** Tempel Meteor Shower
- 13. Which of the following statement is incorrect with respect to Non-Banking Finance Companies?
  - (A) Financial Institution that offers various banking services
  - **(B)** They do not have a banking license
  - (C) They can offer loans and credit-facilities
  - (D) They can take deposits from the Public
- 14. The Sukanya Samriddhi Yojana, a part of Beti bachao Beti Padhao campaign was launched by Modi Government in which year?
  - **(A)** 2016
- **(B)** 2017
- **(C)** 2018
- **(D)** 2015
- 15. Which state has observed its foundation day on November 9?
  - (A) Jharkhand
  - (B) Uttarakhand
  - (C) Chhattisgarh
  - (D) Telangana











**16.** 'Muscat' is the capital of which of the following 24. The Word 'Secular' was introduced in which country? amendment to the Preamble of the Indian (A) Angola (B) Botswana Constitution? (A)  $42^{nd}$  amendment **(B)** 41<sup>st</sup> amendment (C) Kuwait (D) Oman (C) 45<sup>th</sup> amendment **(D)** 40<sup>th</sup> amendment 17. Which public sector bank has allocated Rs 71 crores to support various initiatives that will help 25. How many languages have been recognized in the 8<sup>th</sup> Schedule of the Constitution of India? India battle the deadly second wave of COVID-19 pandemic? (A) 27 languages **(B)** 30 languages (A) Bank of Baroda (C) 21 languages (D) 22 languages (B) Bank of India (C) Bank of Maharashtra (D) State Bank of India **26.** What is the term used for the property of the Mayank Agrawal who has been appointed as the metal to be drawn into threads or wires or 18. Brand Ambassador of Aeronutrix's Fast&Up hammered into thin-sheets? belongs to which sport? (A) Ductility **(B)** Malleability (A) Badminton **(B)** Table-Tennis (C) Elasticity **(D)** Metallicity (D) Cricket (C) Hockey 27. Which of the following Windows Program is 19. Researchers from which institute have resolved used for the management of the files and the the mystery of the antimatter counterpart of the folders? electrons called Positron and Positron Excess (A) Microsoft Office (B) Control Panel Phenomenon? (C) Windows Explorer (D) Window (A) Raman Research Institute Accessories (B) Tata Institute of Fundamental Research (C) Indian Institute of Science 28. India's largest capacity Solar-Power Plant is **(D)** Indian Institute of Technology Bombay located in which state of India? (A) Gujarat (B) Rajasthan (C) Tamil-Nadu 20. Mahatma Gandhi Marine National Park is located (D) Andhra-Pradesh in which of the following Union-territory of 29. India? Which state of India is the leading producer of (A) Daman and Diu tobacco? (B) Dadra and Nagar Haveli (A) Tamil-Nadu **(B)** Bihar (C) Pondicherry (C) Uttar-Pradesh (D) Andhra-Pradesh (D) Andaman and Nicobar Islands **30.** China, Russia and which country have shared 21. The annual "Buchi Babu Memorial Trophy" is satellite data with ISRO for mapping flood in awarded in which sport in India? Assam? (A) Badminton (B) Hockey (A) Nepal (B) Pakistan (C) Cricket (**D**) Table-Tennis (C) France (D) Japan India's first visually impaired friendly railway- 31. SIMBEX which is an annual naval-exercise 22. station is located at which place? between India and Singapore was formalized in (A) Chennai (B) Kochi which year? (A) 1999 (C) Vadodara **(D)** Mysuru **(B)** 1984 **(C)** 1994 **(D)** 2000 23. The southwest monsoon arrives in India normally during which of the following month? 32. A tiny snake "Xylophis deepaki" has been named (A) December **(B)** June in honour of which Indian herpetologist? (C) April (D) October (A) Deepak Chopra **(B)** Deepak Dinkar (C) Deepak Mondal (D) Deepak Veerappan









33. Which company has become the third largest 41. Which of the following chemical released by services company by market Chlorofluorocarbons is harmful for the Ozone-Indian IT capitalization by suppressing HCL Technologies? laver? (A) Infosys (B) TCS (A) Sulphur dioxide (B) Nitrogen Peroxide (C) Chlorine (C) Cognizant (D) Wipro (D) Fluorine 34. Recently, who has won the Portuguese Grand 42. USB, a standard type of connection for many Prix 2021? different kinds of devices stands for .....? (A) Max Verstappen **(B)** Lewis Hamilton (A) Universal Standard Browser (C) Sebastian Vettel (D) Valtteri Bottas (B) Universal Smart Browser (C) United Service Bus 35. Which female cricketer of Australia has become (D) Universal Serial Bus the first player to score 100 wickets in T20 International and 1000 runs? 43. What is the term used to refer to a situation when (A) Meg Lanning there is only one buyer and one seller of a **(B)** Alice Perry product in the market? (A) Oligopoly (C) Beth Mooney (D) Nicole Bolton **(B)** Public Monopoly (C) Bilateral Monopoly **36.** What is the commonly used unit for measuring (D) Franchised Monopoly the speed of the Data-Transmission? (A) Characters per second 44. Who among the following is the Supreme **(B)** Bits per second Commander of The Indian Defence Forces? (A) Prime Minister of India (C) Megahertz (D) Nano seconds (B) President of India (C) Defence Minister of India National Unity Day (Rashtriya Ekta Diwas) is (D) Council of Ministers of India 37. celebrated every year to commemorate the birthanniversary of which of the following leader? 45. Which of the following physical quantity is the (A) Indira Gandhi SI unit of Frequency? **(B)** Bal Gangadhar Tilak (A) Hertz (B) Joule (C) Jawaharlal Nehru (C) Farad **(D)** Watt (D) Sardar Vallabhbhai Patel According to the Second Law of Motion, for a 46. given force, acceleration is inversely proportional 38. Who among the following is known for introducing the 'Policy of Imperialism'? to ..... of an object? (A) Francisco de Almeida (A) Volume **(B)** Density (B) Francisco Barreto (C) Mass (D) Velocity (C) Alfonso d' Albuquerque (D) Martin Alfonso de Souza 47. Which of the following chemical-compound is used for the ripening of the mangoes? 39. The English East India Company was established (A) Calcium Chloride in which of the following year? (B) Sodium Chloride **(A)** 1605 **(B)** 1602 (C) Calcium Carbide **(C)** 1607 **(D)** 1600 (D) Potassium Sulphate **40.** Captain Hawkins for the first time arrived at the 48. Goitre is caused due to the deficiency of which of Royal court of Jahangir in which year? the following element? **(A)** 1609 **(B)** 1605 (A) Iodine **(B)** Chlorine





**(D)** 1610





(D) Calcium

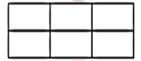
**(C)** 1615

(C) Zinc

- 49. What is name of the project that has been launched by Mahindra group to ease the transportation of oxygen from producing plants?
  - (A) Oxygen on Wheels (B) Oxygen Mobile
- - (C) Oxygen Auto
- **(D)** Oxygen Ambulant
- **50.** Which among the following was the capital of the Mauryan Kingdom?
  - (A) Vaishali
- **(B)** Lumbini
- (C) Bodh-Gaya
- (D) Patliputra

# Mathematics

- 51. If 3 cot  $\theta = 4 \cos \theta$ , then what is the value of cos
  - **(A)** 2/16
- **(B)** 1/8
- **(C)** 7/16
- **(D)** 9/16
- The number of rectangles/squares in the rectangle 52.



**(A)** 18

**(B)** 17

**(C)** 16

- (D) None of these
- What is the value of  $\sqrt{18-2\sqrt{77}}$ ? 53.
  - **(A)**  $\sqrt{11} + \sqrt{7}$
- **(B)**  $\sqrt{12} \sqrt{5}$
- **(C)**  $\sqrt{11} \sqrt{7}$
- **(D)**  $\sqrt{13} \sqrt{4}$
- If the lengths of the two parallel sides of a 54. trapezium are 4 cm and 6 cm and its area is 25 cm<sup>2</sup>. Find the distance between its parallel sides (in cm).
  - (A) 2.5 cm
- **(B)** 10 cm
- (C) 5 cm
- **(D)** 7.5 cm
- If x/y = 3/5, then what is the ratio of (5x+2y) and 55. (5x-y)?
  - (A) 5:2
- **(B)** 5:3
- **(C)** 5:8
- **(D)** 3:8
- **56.** Find the standard deviation of the set 3, 3, 4, 4, 5, 5.
  - (A) 6

**(B)** 3

**(C)** 0

- **(D)** 1
- 57. Which of the following is in the middle when arrange in ascending order?
  - 11/12, 12/13, 8/9, 20/23, 17/19
  - (A) 8/9
- **(B)** 17/19

- **(C)** 11/12
- **(D)** 12/13
- **58.** Rekha purchased one dozen pencils for Rs. 60 Rs pack them into boxes with three pencils in each box and sold boxes for 18 each. Find her profit percentage?
  - **(A)** 20 %.
- **(B)** 25 %.
- **(C)** 16 <sup>2</sup>/<sub>3</sub> %
- **(D)** 33 ½ %
- 59. Calculate number of trailing zeros in the following
  - $10^{10} + 10^{20} + 10^{30} + 10^{40} + 10^{50}$
  - (A) 50 zero
- **(B)** 30 zero
- (C) 20 zero

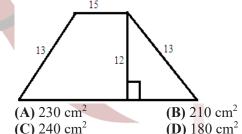
**60.** 

- **(D)** 10 zero
- Ashish is thrice as fast as Abhinav in doing work. If Ashish can do a work in 20 less than Abhinav in how many days will they complete the work together?
- (A) 15 days
- **(B)** 7 ½ days
- **(C)** 10 days
- **(D)** 5 ½ days
- If x + 1/x = 1 find the value of  $x^{66} + 1/x^{243} = ?$ 61.
  - (A) 0

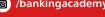
**(B)** 2

**(C)** -1

- **(D)** 1
- What is the area of this trapezoidal garden? (All 62. the given measures are in cm)



- In two jar A and B, the ratio of Milk Water is 5: 2 and 3: 4 respectively. Seven liters of A and 21 liters of the B are mixed together to form a new mixture. What will be the ratio of Milk and water in the new mixture?
- (A) 2 : 3
- **(B)** 1:2
- (C) 2:1
- **(D)** 1:1
- 64. The average of seven consecutive integers starting with 'K' is m. What is the average of 8 consecutive integers starting with (K + 2)?
  - **(A)**  $(m + 2) \div 2$
- **(B)**  $(m+5) \div 2$
- (C)  $(2m + 5) \div 2$
- **(D)** m+3









123

**Banking Academy** 

- **65.** Lucknow express train leaves Lucknow at 8 am and two hours later another Rajdhani express train leaves Lucknow but both the trains are departure in Delhi at 6 pm on the same day. If the difference between their speeds be 10 km/hr, what is the average speed of both the trains over the entire route?
  - (A) 40/9 km/hr
- **(B)** 44 4/9 km/hr
- (C) 42 3/5 km/hr
- **(D)** 44 km/hr
- If the simple interest on Rs. 3 for 3 month is 3 66. paisa, then the rate percent per annum will be?
  - (A) 4 %
- **(B)** 12 %
- **(C)** 10 %
- **(D)** 8 %
- **67.** How many times does the number 4 occur in ten's place from the numbers ranging 1 to 100?
  - **(A)** 20
- **(B)** 10

**(C)** 11

- **(D)** 19
- Reeta is 25 year older than her daughter. In five 77. **68.** year she will be twice as old as her daughter. What will be the age of Reeta after three years?
  - (A) 23 year
- **(B)** 42 year
- (C) 45 year
- **(D)** 48 year
- If  $\sin\theta + \cos\theta = \sqrt{2} \cos\theta$  find the value of  $\cos\theta$ 69.  $\sin\theta$ 
  - (A)  $\sqrt{2} \sin \theta$
- **(B)**  $\sqrt{2} \sin \theta$
- (C)  $2 \sin \theta$
- **(D)**  $\sqrt{2} \cos \theta$
- 70. In a school there are boys and girls in the ratio of 2:3. If 15% of the boys and 25% of the girls are 79. scholarship holders, what is the percentage of the school students who are not scholarship holders?
  - (A) 79 %
- **(B)** 77%
- (C) 69 %
- **(D)** 87 %
- Simplify the following? 71.
  - $1\frac{1}{2} + 3\frac{3}{4} 2\frac{1}{4} + 2 \times 3 \div 4 = ?$
  - (A)  $3\frac{1}{2}$
- **(B)**  $4\frac{1}{2}$

**(C)** 3

- **(D)** 4
- 72. Twice the difference between two numbers is equal to their sum. If one number is 15 find the other number?
  - (A) 25
- **(B)** 20

**(C)** 5

- **(D)** 10
- Simplify the following  $243 \times 9 \div 27 \div 3 = (3)^{?}$ 73.
  - (A) 8

**(B)** 9

- **(C)** 5
- **(D)** 3
- If  $\sin\theta = 1/\sqrt{2}$  then  $\tan\theta + \cos\theta = ?$ 
  - **(A)**  $(\sqrt{2} + 1)/\sqrt{2}$
- (C)  $3/\sqrt{2}$
- **(D)**  $1/\sqrt{2}$
- 75. As a working partner, the sage gets 10% in the form of commission of profit after paying his commission. If the working partner's commission is Rs 4000, what is the total profit in business?
  - (A) Rs. 36000
- **(B)** Rs. 46000
- (C) Rs. 44000
- **(D)** Rs. 40000
- The compound interest on a certain sum for two years at 10% per annum is Rs. 483. What is the simple interest on the double sum for half the time at double the rate percent per annum?
  - (A) Rs. 460
- **(B)** Rs. 920
- **(C)** Rs. 210
- **(D)** Rs. 230
- The product of the LCM and HCF of two numbers is 48. The difference of the two numbers is 8. Find the numbers?
  - (A) 1 and 9
- **(B)** 14 and 6
- (C) 16 and 8

78.

- **(D)** 12 and 4
- If X and Y are the midpoints of PQ and PR respectively of  $\Delta PQR$  which is an equilateral triangle, then the ratio of the areas of  $\Delta PXY$  and ORXY is?
- **(A)** 1:3
- **(B)** 2: 3
- (C) 1: 4
- **(D)** 4:1
- If the profit is 300% of the cost. If the cost increases by 25% but the selling price remains constant, approximately profit is what percentage of the selling price?
  - (A) 67%
- **(B)** 63%
- **(C)** 69%
- **(D)** 65%
- 80. If side of a square is equals to the diameter of a circle which area is 154 cm<sup>2</sup>, then find the area of that square?
  - (A)  $144 \text{ cm}^2$
- **(B)**  $196 \text{ cm}^2$
- (C)  $169 \text{ cm}^2$
- **(D)**  $256 \text{ cm}^2$
- 81. A pipe can fill a tank in 20 mins and a second pipe can empty the filled tank in 40 mins. By mistake without closing the second pipe, the first tap was opened. In how many minutes will the empty tank be filled?
  - (A) 60 minute
- (B) 20 minute













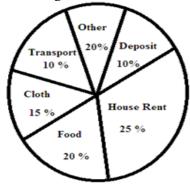
- (C) 30 minute
- **(D)** 40 minute
- **82.** A person carries 165 Rs. in the form of currency notes of denomination Rs. 5, Rs. 10 and Rs. 20 in 87. the ratio of 3:2:1. What is the value of currency notes of Rs. 20 denomination?
  - **(A)** 60

**(B)** 100

**(C)** 80

- **(D)** 40
- Direction (83-85): In the following pie chart 88. percentage distribution of various type of expenditure of a person is given.

Percentage Distribution of Various Expenditures



- What is the central angle of the sector 83. corresponding to the expenditure incurred on cloth?
  - (A) 154°
- **(B)** 64°
- **(C)** 54°
- **(D)** 44°
- Expenditure on house rent is what percent more 84. than the expenditure on food?
  - (A) 25 %
- **(B)** 20%
- (C) 5 %
- (D) Can not determine
- Which of the following make half of the total 85. 91. expenditure?
  - (A) House Rent, Food, Transport
  - (B) House Rent, Deposit, Cloth
  - (C) Food, Deposit, Cloth
  - (D) None of these

#### General Intelligence and Reasoning

Select the figure that does NOT belong in the 86. following group.



(A) A

**(B)** B

(C) D

**(D)** C

In the following question, select the related number pair from the given alternatives.

73:21::?:?

- (A) 95:45
- **(B)** 46:28
- **(C)** 37:18
- **(D)** 19:10

pointing to a gentleman, Shalini said, "His only brother is the father of my son's father". How is the gentleman related to Shalini?

- (A) Grandfather
- (B) Uncle
- (C) Brother
- (D) None of these

A is taller than B. B is shorter than C. D is taller than A but shorter than C Who is the tallest?

(A) A

89.

90.

**(B)** B

(C) C

(D) D

In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I: No lemon is sour II: All sour is vellow

**Conclusion I:** Some yellow is lemon

- **II:** All lemon is yellow
- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Both conclusions I and II follow
- (D) Neither conclusion I nor conclusion II follows

If "THRONE" is coded as "VJTMPC" what is the code for "DIRECT"?

- (A) FGTGEV
- (B) FHTGEV
- (C) FHTCEV
- (D) FGTCEV
- 92. Sway: Prejudice:: Solitude:?
  - (A) Public
- **(B)** Company
- (C) Purdah
- (D) Friendship
- 93. One statement is given followed by two conclusions/ assumptions, I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given











conclusions/assumptions can definitely be drawn from the given statement.

Statement 1: All Study materials are Book

- 2: No book is internet
- (A) All Books are Study material.
- **(B)** No Study material is Internet.
- **(C)** Some Internets are books.
- (D) Some Study material can be Internet
- 94. Find the missing term (?) in the series

14, 15, 16, 18, 18, 21, 20,?

(A) 24

**(B)** 22

**(C)** 23

- **(D)** 25
- 95. Select the alternative which shows similar relationship as the given pair

**Shoes: Sandals** 

- (A) Aunt : Niece
- (B) Market: Crowd
- (C) Sword : Dagger
- (D) Sheep: Swarm
- Rearrange the jumbled letter to make 96. meaningful word and then select the one which is different.
  - (A) EMITUN
- (B) ORHU
- (C) CNDSOE
- (D) EIMT
- A man said, "Reyash is the son of only daughter 97. of my father'. Revansh is related to man?
  - (A) Uncle
- **(B)** Nephew
- (C) Cousin
- (D) Son

**Direction (98–100):** Read the following information carefully and answer the question.

> Six friends A, B, C, D, E and F live on different floor numbered from 1 to 6 but not necessarily in same order. C lives on odd number floor there are two friends live between C and A. D lives immediate above F who lives on an even number floor. A does not live above E.

- 98. Who lives on the top most floor?
  - (A) E

**(B)** B

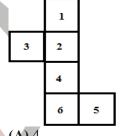
(C) A

- **(D)** D
- 99. How many person live above D's floor?
  - (A) None
- **(B)** One
- **(C)** Two
- **(D)** Four
- **100.** Which of the following combination is true?
  - (A) D 6<sup>th</sup>
- **(B)**  $A 2^{nd}$

- (C) F- 5 th
- **(D)** C- 1 st
- 101. Which of the following is not similar to the other?
  - (A) Kiwi
- **(B)** Campanula
- (C) Bird of paradise
- (D) Baby's Breath
- 102. Which statement is required for giving the correct answer of the following question?

Who came first among A, B, C, D and E?

- **I.** B got less marks than C but more than E.
- II. D got more marks than C and A got less marks than B.
- (A) If Only I is sufficient
- **(B)** If Only II is sufficient
- (C) Both I and II together are sufficient
- (D) Neither I nor II is sufficient.
- 103. When the following figure is folded to form a cube what would lie opposite to 5?



(A) 4

**(B)** 1

**(C)** 3

- **(D)** 2
- A girl wants to buy following item in the price range of as below.
  - 1. Pencil between Rs. 4 and Rs. 5 per pencil.
  - 2. Pen in price between Rs.8 and Rs.10 per pen
  - 3. Notebook at 25 per piece.

In which shop she will definitely get all her item in given price range.

- (A) Shop S sells two pencils at 9 Rs, Pen at 10 Rs per pen and Notebook at 28 Rs per notebook.
- (B) Shop H sells a pencil at 4 Rs, pen at 12 Rs per pen and Notebook at 25 Rs per notebook.
- (C) Shop I sells three pencil at 12 Rs. two pen at 22 Rs. and two notebook at 50 Rs.
- (D) Shop J sells a pencil at 4.5 Rs, two pens at 16 Rs. and two notebooks at 50 Rs.
- **105.** Abhinav is 12<sup>th</sup> from left and Tanu is 12<sup>th</sup> from the right. If the interchange the position abhinav become 15<sup>th</sup> from left then how many person are there in the row?



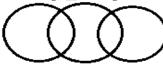








- (A) 24 th
- **(B)**  $26^{th}$
- (C)  $23^{rd}$
- **(D)** 27<sup>th</sup>
- 106. Which of the following operation will result in
  - (A)  $24 \div 12 + 3 \times 5 8$
- **(B)**  $3 + 51 \div 3 2 \times 4$
- (C)  $48 \div 8 7 \times 2 + 18$
- **(D)**  $6 \times 2 \div 4 3 + 5$
- **107.** Which of the following third word if they are arranged according to the dictionary.
  - (A) Phage
- **(B)** Pharisee
- (C) Phalange
- (D) Phallic
- 108. Ridhima started walking in north direction then she turned 45 degree anticlockwise and then again turned 180 degree anticlockwise and then finally she turned 90 degree clock wise. In which direction she is facing now?
  - (A) East
- **(B)** North East
- (C) South West
- (D) South
- 109. Choose the set which represent with the following venn diagram.



- (A) Whale, Fishes, Crocodile
- (B) Smokers, Engineers, Non-smoker
- (C) Thief, BlackMailer, Antisocial
- **(D)** None of these
- 110. If the 24th Oct in a year is Wednesday, then how many Mondays are there in that month?
  - **(A)** 4

**(B)** 3

**(C)** 6

- **(D)** 5
- 111. Find the odd one out
  - (A) CJ

**(B)** GM

**(C)** JP

- **(D)** VB
- 112. Which when place in the blank space would complete the pattern.











- 113. Find the next two letters in the given series
  - ABBDEEEHIII??
  - **(A)** 1 2 2 2 1
- **(B)** 2 1 1 2 2
- **(C)** 1 2 2 1 2
- **(D)** 2 2 1 2 1
- **114.** Which conclusion follows the statement.
  - **Statement: 1.** All Sky is Blue.
    - 2. Some Blue is Color.
    - **3.** No Color is Water.
    - Conclusion: I. some Blue is not Water.
    - II. Some Color is Sky
    - (A) Only I follows
- **(B)** Only II follows
- (C) Both I and II follow (D) None follows.
- 115. How many such digits are there in the number 213476 each of which is as far away from the beginning of the number as when the digits are arranged in ascending order within the number?
  - (A) One
- **(B)** Two
- (C) Three
- (D) Four
- 116. Saurav's sister sadhana is mother of Rama. Arun and Rama are siblings. How Saurav is related to Arun?
  - (A) Niece
- **(B)** Nephew
- (C) Uncle
- **(D)** None of these
- 117. Find the similarity of the following

#### Conga, Dhol, Dunun

- (A) They are music festival.
- **(B)** They are different type of music.
- (C) They are Different musical instrument
- **(D)** They are type of drums.
- **118.** Which of these following the water image. 7CITE
  - (V) 7 CITE
- (B) **7CILE**
- TIC7
- **119.** Find the missing alphanumeric term in the series? C, B, Z, W, S, N, ?
  - (A) H

**(B)** T

**(C)** R

**(D)** P













120. A statement followed by some conclusions. Which conclusion follows the statement?

> Statement: Eating nutritious food is the only way to keep the doctor away.

> **Conclusion:** I. Doctor will be out of job soon. II. Junk food is the main source of employment of doctors.

(A) Only I follows **(B)** Only II follows (C) Neither I nor II follows (D) Both I and II

# **Solution**

**Ans.5(D)** 

Ans.6(A)

follow

### General Awareness

Instagram has launched two campaigns **Ans.1(B)** named "Safe Stree" and "My Kanoon" to provide online safety to young users. Instagram has partnered with a youth media and insights-company and women's rights and laws platform to launch "Safe Stree".

> It aims to spread awareness about the safety features available on the platform. "My Kanoon" will inform users about the

> legal rights and protection available to them.

About Instagram -

Date launched: 6 October 2010

Original author(s): Kevin Systrom; Mike

Krieger

Developer(s): Meta Platforms Available in: 32 languages

Owner: Meta

- Under the Prime Minister Farmer Energy Ans.2(A) and Uplift Mahabhaanan (PM-Kusum) scheme, the target is to set up solar capacity of 25,750 MW by 2022. Under the Kusum Yojana, there is a plan to run all the diesel / electric pumps used for irrigation across the country with solar energy.
- Preeti Patel became the first Home Ans.3(B) Minister of Indian origin in the UK. Pratiti Patel had run a 'vote campaign' under the leadership of the referendum of June 2016 in favor of being out of Britain's EU (EU). He considers former British Prime Minister Margaret Thatcher as his ideal leader.
- In these museums, the contents and Ans.4(D) related to the prime minister's dialogues personal life, political journey, will be kept. This announcement was made by

Prime Minister Narendra Modi during the release of 'Chandrasekhar - The Best Icon of Ideological Politics', book written by former Prime Minister Chandrashekhar. This book is written by Harivansh and Ravidatta Vaipavee together

Reserve Bank of India (RBI) executive director T Rabi Sankar has been named as the fourth Deputy Governor of the central bank.

The Appointments Committee of the Cabinet has approved his appointment.

He is in charge of the payments system, fintech, information technology and risk management at the RBI.

He succeeds BP Kanungo as the deputy governor, who retired on April 2 after getting a one-year extension in his position.

Oppo had bought this right in March 2017 for 5 years for Rs 1,079 crore. Now Bengaluru's online tutorial firm Byju's name will be seen in this place. Until the upcoming West Indies tour, the name of Oppo will be written on the team India team. After that, the name of Byju's name will be seen when India visits South

**Ans.7(C)** Uttar Pradesh Chief Minister Yogi Adityanath recently flagged off the trial run of the Kanpur Metro.

The work on Kanpur Metro had started on November 15, 2019.

Pradesh Uttar is currently having operational metro railway service in Ghaziabad, Noida, Greater Noida and Lucknow.

After the Kanpur Metro is flagged off, Uttar Pradesh would be the only state in

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Africa.

the country to have metro facilities in five districts.

According to District Magistrate Visakh G Iyer, the operation of Kanpur Metro is scheduled to start from December 31.

Two metro corridors of about 32.5 km long are proposed under the Kanpur Metro project.

**Ans.8(B)** Students of IIT Kharagpur have developed a mobile app for the care of old age, the person taking care of this app will know Ans.11(A) the fall of an old person and the exact information about his location will available. The caregiver will be connected to the older people through this app.

> There are several AI features in it, such as person who is cared for by the aging person, the call will be made immediately. Apart from this, the feature has been added to keep track of the mood of the old person, as soon as the app is opened, the photograph of the old man will be automatically recorded.

Central Board of Direct Taxes celebrates **Ans.9(C)** 159th Income Tax Day on July 24, 2019 Various activities were organized in Regional Income Tax Offices across the country in the week before Income Tax Day 2019, this includes departmental publication, e-journal, publicity kit Income tax was presented to Sir James Wilson for the first time in India on July Ans.13(D) 24, 1860.

Ans.10(D) As part of Azadi Ka Amrit Mahotsay, States/UTs have conducted week-long Clean Green Village activity under MGNREG scheme from 29th October to 4th November 2021.

During the Clean Green Village Week, the focus was on the identification and construction of Soak Vermicompost/NADEP pit and initiatives such as vermin-composting, reuse of waste materials, recycling of non-biodegradable waste.

The activity has seen enthusiastic involvement of villagers nationwide.

Various meetings, workshops and onsite demos were conducted during the week at a large number of gram panchayats.

**Employment** About National Rural Guarantee Act, 2005 -

Launch year: 2006

Sector: Rural Employment

Launched by (prime minister): Manmohan

Ministry: Ministry of Rural Development

Passed: 23/08/2005

Introduced by: Raghuvansh Prasad Singh,

Minister of Rural Development

The World Meteorological Organization intergovernmental (WMO) is membership of 192 organization with a Member States and Territories. current Secretary-General is Petteri Taalas. The Organization is headquartered Geneva, Switzerland.

**Ans.12(A)** Originally discovered in 1833, the Leonids Meteor Shower is observed every year in November.

> The meteor began on November 6 this year and will continue until November 30 and can be witnessed through the naked eye.

> The peak activity is expected on November 17.

> The Meteor Shower contains debris left behind by the 55P/Tempel-Tuttle comet that enter Earth's atmosphere.

> These debris objects are called meteors and are seen as bright light streaks across the night sky.

Non-banking financial companies (NBFCs) are financial institutions that offer various banking services, but do not have a banking license. These

institutions are not allowed to take deposits from the public. NBFCs can offer banking services such as loans and credit facilities, retirement planning, money markets, underwriting and merger activities.

The Sukanya Samriddhi Account Scheme Ans.14(D) was launched as a part of the Beti Bachao, Beti Padhao campaign by the Modi government on 22 January 2015. Sukanya Samriddhi Yojana is a savings scheme formulated to benefit the parents of the girl children. The scheme inspires the parents/guardians to accumulate funds in the Sukanya Samriddhi Yojana account from the time of the birth of their girl









child for the purpose of their education Ans.19(A) and marriage.

Uttarakhand Foundation Day is observed Ans.15(B) annually on November 9 to celebrate the formation of the 27th state of India. Uttarakhand was formed in the year 2000

after joining several districts from the North-western part of Uttar Pradesh and a portion of the Himalayan Mountain range. It was earlier known as Uttaranchal and was renamed Uttarakhand in the year 2007.

On the occasion of the 19th State Foundation Day, the state government of Nainital will celebrate a week-long foundation week from November 03, 2021, to November 09, 2021.

The state of Uttarakhand is comprised of famous rulers in the past: the Kushanas, Kudinas. Kanishka, Samudragupta, Katuria, Palas, Chandras, and Pawaras.

**Ans.16(D)** Muscat is a capital of Oman, located on the Gulf of Oman coast. The town long gave its name to the country, which was called Muscat and Oman until 1970.

Ans.17(D) The State Bank of India has allocated Rs 71 crores to support various initiatives that will help India battle the deadly second Ans.22(D) wave of COVID-19 pandemic.

The public sector bank has allocated Rs 30 crores to set up healthcare facilities.

The Bank will also contribute Rs 10 crore vaccine research and genomesequencing equipment and lab.

The State Bank of India had pledged 0.25 Ans.23(B) percent of its annual profit last year to fight the coronavirus outbreak in India. It had donated over Rs 108 crore to the PM CARES Fund.

The bank has also contributed Rs 11 crore to support the government's vaccination drive.

Ans.18(D) Mayank Anurag Agarwal is an Indian international cricketer who plays as a right- handed opening batsman for Karnataka. He made his international debut for the India cricket team on 26 December 2018 against Australia. He has been recently appointed as the brand ambassador of Aeronutrix's. Fast and Up which is a Sports Products Company.

Researchers from the Raman Research Institute (RRI), Bengaluru, have resolved the mystery of the antimatter counterpart of the electrons called Positron and Positron Excess Phenomenon.

> Their proposal is: cosmic rays while propagating through the Milky Way galaxy interact with matter producing other cosmic rays, primarily electrons and positrons.

> The authors Agnibha De Sarkar, Sayan Biswas and Nayantara Gupta argue that these new cosmic rays are the origin of the "positron excess" phenomenon.

> RRI is an autonomous institution of the Department of Science and Technology.

Ans.20(D)

Mahatma Gandhi Marine National Park is a national park of India in Wandoor on Situated 29 Andaman Islands. kmfrom Port Blair. the Park is located on the South Western coast of South Andaman, in the Bay of Bengal.

Ans.21(C) The memorial trophy has been named after Mothavarapu Buchi Babu Naidu (1868-1908) who is considered as father of South Indian cricket. It is an annual cricket tournament.

> Mysuru Railway Station is the first railway station in India to be visually impaired friendly. Anuprayaas, a non-government working for the welfare of organization visually challenged persons, along with south-western railway officials completed this project in 2015.

Southwest monsoon is wind that brings rainfall that results in floods during the wet season. It is generally observed in India in the month of June.

**Ans.24(A)** The 42nd Amendment amended Preamble changed the description of India from "sovereign democratic republic" to a "sovereign, socialist secular democratic republic", and also changed the "unity of the nation" to "unity and integrity of the nation".

Ans.25(D) The Eighth Schedule to the Indian Constitution contains a list of 22 official languages. There is no language in India. The Constitution India designates 22 official languages for Government of India and as Hindi





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written in the Devanagari script and English as the official languages of the Union.

Ans.26(A) Ductility is a measure of a metal's ability to withstand tensile stress—any force that pulls the two ends of an object away from each other. Ductility is a property by virtue of which a metal can be stretched thin when tensile stress is applied.

**Ans.27(C)** 

Ans.28(C)

Ans.29(D) India is one of the major producers of tobacco in the world - ranking third with a production of about 600,000 after China (3,000,000 tonnes) and USA (700,000 tonnes). Andhra Pradesh is the largest producer and Guntur is the place where Tobacco board is situated.

Ans.30(C) At the request of China during the earthquake of China's Yunnan province shared mapping in August 2014, ISRO data through cartosat. The signatory for Ans.35(B) the International Charter Space and Major Disaster on Space and Major Disasters, the country can request mapping and satellite data related to each other during disaster.

Ans.31(C) Singapore India Maritime Bilateral Exercise (SIMBEX) is an annual bilateral naval exercise conducted by the Indian Ans.36(B) Navy and the Republic of Singapore Navy (RSN). The exercise has been held annually since 1994.

Ans.32(D) A tiny snake "Xylophis deepaki" has been named in honour of Indian herpetologist Deepak Veerappan for his contribution in Ans.37(D) erecting a new subfamily Xylophiinae to accommodate wood snakes.

The common name suggested for the species is "Deepak's wood snake".

Xylophis deepaki is a tiny snake of just 20 cm length with iridescent scales.

It was first found on a coconut plantation in Kanyakumari.

It is now reported to be an endemic species of Tamil Nadu and also been sighted in some parts of the southern Western Ghats.

Wipro has regained its position as the 3rd Ans.33(D) largest Indian IT services company by suppressing HCL Technologies in market Ans.39(D) capitalization.

Its market capital is of 2.65 trillion while HCL Technologies' capital is of 2.62 trillion.

Tata Consultancy Services remains at the top of the list with a market capital of 11.51 trillion and followed by Infosys.

Wipro has also announced its commitment to achieving net-zero greenhouse gas (GHG) emissions by 2040.

Lewis Hamilton overtook title rival Max Verstappen and Mercedes team-mate Valtteri Bottas to win the Portuguese Grand Prix. Verstappen finished second, while Bottas, who started from pole, came in a disappointing third place. Sergio Perez took the flag in fourth, with Lando Norris fifth for McLaren. The reigning Formula One champion dropped to third in the opening laps but made two impressive moves in nine race-winning laps to claim his second victory of the season.

Alice Perry has played 104 T20 Internationals so far, in which he has scored 1005 runs and has taken wickets. Perry has so far scored just three half-centuries in 60 T20 innings. Pakistan all-rounder Shahid Afridi has taken 98 wickets with 1498 runs in T-20 International Cricket.

Data transmission refers to the movement of data in form of bits between two or more digital devices. Data transmission speed is usually measured in bits per second and its derived units are kilobits, megabits and gigabits per second.

National Unity Day (also known as Rashtriya Ekta Diwas) is celebrated every year on 31st of October by people all through India. It is celebrated to commemorate the birth anniversary of Sardar Vallabhbhai Patel who really unified the country. He was born on 31st October, 1875.

Ans.38(C) Afonso de Albuquerque, Duke of Goa was a Portuguese general, "great conqueror", a statesman, and an empire builder. He introduced the policy of Imperialism of the Portuguese Territories in India.

> The English East India Company was founded in 1600, as The Company of

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Ans.34(B)



Merchants of London Trading into East Indies. It gained a foothold in India with the establishment of a factory in Masulipatnam on the Eastern coast of India in 1611 and the grant of the rights to establish a factory in Surat in 1612 by the Mughal emperor Jahangir.

- The company sent Captain Hawkins to Ans.40(A) Jahangir's court to seek permission for the English to open a factory at Surat in 1609 was refused due to the hostile which activities of the Portuguese and the opposition of the Surat merchants.
- Ans.41(C) Chlorofluorocarbons (CFCs) are a family of chemical compounds developed back in 1930's as safe, non-toxic, nonflammable alternative dangerous Ans.49(A) substances like ammonia for purposes of refrigeration and spray can propellants. One of the elements that make up CFCs is proper chlorine. Under conditions, chlorine has the potential to destroy large amounts of Ozone.
- Ans.42(D) USB is an industry standard that establishes specifications for cables. connectors and protocols for connection. It stands for Universal Serial Bus.
- Ans.43(C) Bilateral monopoly is a market consisting of a single seller (monopolist) and a single buyer (monopsonist). For example, if a single firm produced all the copper in a country and if only one firm used this metal, the copper market would bilateral monopoly market.
- The President of India is the Supreme **Ans.44(B)** commander of the Indian Defence Forces. The forces are managed by the Ministry of Defence. The constitution mentions Supreme Commander President as the of the forces, but the real control lies with Ans.51(B) the executive.
- Ans.45(A) The hertz is the derived unit of frequency in the International System of Units (SI) and is defined as one cycle per second.
- Ans.46(C) Newton's second law of motion is formally stated as - The acceleration of an object generated by a net force directly proportional to its magnitude and in the same direction as the net force and inversely proportional to the mass of the object.

- the Ans.47(C) Calcium carbide is a chemical compound that is industrially used in the production of calcium cyanamide for fertilizer and also in welding. calcium carbide comes into contact with water it produces acetylene gas that hastens the ripening of several fruits such as mangoes, bananas and apples but it proves to be hazardous for health.
  - A goitre is an enlarged thyroid gland that Ans.48(A) the neck to swell. It is caused due causes to the deficiency of Iodine in the body.Goitres are often harmless but symptoms can occur, and treatment may be required depending on the size and type of goitre.
    - The Mahindra Group Chairman, Anand Mahindra has rolled out a project titled "Oxvgen on Wheels" to ease the transportation of oxygen from producing plants to hospitals and homes.

The "Oxygen on Wheels" initiative will bridge the gap between oxygen production and its transportation in India, especially in Maharashtra.

Mahindra has lined up around 70 Bolero pickup trucks to connect oxygen producers with hospitals and homes, to deliver oxygen cylinders.

The project is being implemented through Mahindra Logistics.

Maurya Empire was originated from the kingdom of Magadha in the Indo-Gangetic plains which is currently a part of modern Bihar, eastern Uttar Pradesh and Bengal (eastern side). It was ruled through capital Patliputra (modern Patna).

#### Mathematics

 $3 \cot\theta = 4\cos\theta$  $3\cos\theta/\sin\theta=4\cos\theta$  $3=4\sin\theta$  $\sin\theta = 3/4$  $\cos 2\theta = 1 - 2\sin^2\theta$ = 1-2(9/16)= -1/8

is Ans.52(A) Ans.53(C)

Ans.50(D)





$$\sqrt{18 - 2\sqrt{77}}$$

$$\sqrt{11 + 7 - 2\sqrt{77}}$$

$$\sqrt{\left(\sqrt{11}\right)^2 + \left(\sqrt{7}\right)^2 - 2\sqrt{11}\sqrt{7}}$$

$$\sqrt{\left(\sqrt{11}-\sqrt{7}\right)^2}$$

$$= \sqrt{11} - \sqrt{7}$$

**Ans.54(C)** Area = 
$$[(a+b)/2] \times h$$
  
25= $[(4+6)/2] \times h$   
h=5

Ex: 
$$3+3+4+4+5+5=24$$

Then divide the answer by how many numbers there were 
$$(\#24/6 = 4)$$
.

$$(3-4)^2 = 1$$
,  $(3-4)^2 = 1$ ,  $(4-4)^2 = 0$ ,  $(4-4)^2 = 0$ 

$$= 0, (5-4)^2 = 1, (5-4)^2 = 1$$

$$(1+1+0+0+1+1)=4$$

And then divide them by how many new answers there were = 
$$4/4 = 1$$

For the last step, we take the square root of Ans.64(C) answer which is  $1 \rightarrow \sqrt{1} = 1$ 

Ans.58(A) 12 pencil cost price = 60  
No of box = 
$$12/3 = 4$$
  
4 box selling price=  $18 \times 4 = 72$   
% profit =  $(72 - 60)/60 \times 100$   
=  $12/60 \times 100 = 20 \%$ 

Ans.59(D) 
$$10^{10} + 10^{20} + 10^{30} + 10^{40} + 10^{50}$$
  
=  $10^{10}(1 + 10^{10} + 10^{20} + 10^{30} + 10^{40})$   
Here we can clearly see that the term which is in bracket has unit digit 1  
So No of trailing zeros = 10

Ashish can complete 
$$= 10$$
 days

Both can work together in 1 day = 
$$1/30 + 1/10$$

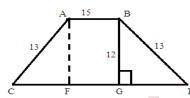
$$= 1 + 3 / 30 = 4/30$$

No they complete the whole work 
$$= 15/2 = 7 \frac{1}{2}$$
 days

**Ans.61(A)** If 
$$x + 1/x = 1$$

Then 
$$x^3 = -1$$
 (By property)

$$(x3)^{22} + 1/(x3)^{81} = (-1)^{22} + 1/(-1)^{81}$$
  
= 1 -1 =0



One side 
$$= 15$$

Other side = 
$$CF + FG + GE$$

$$= 15 + \sqrt{169} - 144 + \sqrt{169} - 144$$

$$= 15 + \sqrt{25} + \sqrt{25} = 15 + 5 + 5 = 25$$

Required Area = 
$$(15+25)/2 \times 12$$

$$=40 \times 6 = 240$$

**Ans.63(D)** Milk in new mixture = 
$$5/7 \times 7 + 3/7 \times 21$$

$$= 5 + 9 = 14$$
 liters

Water in new mixture = 
$$\frac{2}{7} \times 7 + \frac{4}{7} \times 21$$
  
= 2 + 12 = 14

Ratio = 
$$14:14=1:1$$

$$= (K + K + 1 + K + 2 + K + 3 + K + 4 + K + 5 + K + 6)/7$$

$$M = 7K + 21/7$$

$$M = /K + 21/I$$

$$M = K + 3$$

$$K=m-3$$

Average = 
$$(K+2+K+3+K+4+K+5)$$

$$+K+6+K +7+K+8+K+9)/8$$

$$= 8K + 44/8$$

$$= 2K + 11 / 2$$

$$= 2(m-3) + 11/2$$

$$=(2m+5)/2$$

Time taken of Rajdhani express = 8 hours

Speed = Distance / Time 
$$D/8 - D/10 = 10$$

$$D (5-4)/40 = 10$$

$$D = 400 \text{ km}$$



S1 = 400/8 = 50 km/hrS2 = 400/10 = 40 km/hrAverage =  $2 \times 50 \times 40/90$ = 400/9 km/hr = 44 4/9 km/hr

**Ans.66(A)** P = Rs.3 $T = \frac{1}{4} \text{ year}$ S.I = Rs. 3/100 $3/100 = (3 \times R \times 1)/4 \times 100$ R = 4 %

**Ans.67(B)** there is 40 - 49 4 comes at ten's place = 10

**Ans.68(D)** Daughter age = xMother = 25 + x2(x+5) = 25 + x + 52x + 10 = 30 + xX = 20

Mother age = 25 + 20 = 453 year after Mother age = 45 + 3 = 48

**Ans.69(B)**  $\sin \theta + \cos \theta = \sqrt{2} \cos \theta$ Squaring both sides  $\sin^2\theta + \cos^2\theta + 2\sin\theta\cos\theta = 2\cos^2\theta$ 

 $\sin^2\theta + \cos^2\theta + 2\sin\theta \cdot \cos\theta - 2\cos^2\theta = 0$  $\sin^2\theta - \cos^2\theta + 2\sin\theta\cos\theta = 0$  $-\sin^2\theta + \cos^2\theta - 2\sin\theta\cos\theta = 0$ 

Adding  $^2 \sin^2 \theta$  both sides  $2 \sin^2 \theta - \sin^2 \theta + \cos^2 \theta - 2 \sin \theta \cos \theta$ 

 $= 2 \sin^2 \theta$  $(\sin^2 \theta - \cos 2 \theta)^2 = 2 \sin^2 \theta$  $\sin \theta - \cos \theta = \sqrt{2} \sin \theta$ 

Ans. 70(A) Let boys = 200Girls = 300Boys who do not get scholarship  $= 85 / 100 \times 200 = 170$ 

Girls who do not get scholarship  $= 75/100 \times 300 = 225$ 

Required percentage =  $395/500 \times 100 = 79$ 

**Ans.71(B)**  $1\frac{1}{2} + 3\frac{3}{4} - 2\frac{1}{4} + 2 \times 3 \div 4$  $=(1+3-2)+(\frac{1}{2}+\frac{3}{4}-\frac{1}{4})+\frac{3}{2}$  $= 2 + 1 + 1 \frac{1}{2} = 4 \frac{1}{2}$ 

**Ans.72(C)** 2(x-y) = x + y2(15 - y) = 15 + y30 - 2y = 15 + y15 = 3yy = 5

**Ans.73(D)** 243 x 9  $\div$  27  $\div$  3  $= 243 \times 9 / 27 \times 3 = 243/9$  $=27=(3)^3$ 

**Ans.74(A)**  $\sin\theta = 1/\sqrt{2}$  $\sin\theta = \sin 45$  $\theta = 45^{\circ}$  $\tan\theta + \cos\theta = \tan 45^{\circ} + \cos 45^{\circ}$   $= 1 + 1/\sqrt{2}$  $=\sqrt{2} + 1/\sqrt{2}$ 

**Ans.75(C)** Let Profit be x

Remaining profit after paying working partners commission = x - 4000

so  $(x - 4000) \times 10/100 = 4000$ x-4000 = 40000

x = 44000

Ans.76(B)  $P + 483 = P (1 + 10/100)^2$ P + 483 = P (121/100)

21P/100 = 483P = 2300

Simple Interest for P = 4600

T=1 year R = 20 % $SI = 4600 \times 1 \times 20/100 = 920$ 

Ans.77(D)  $LCM \times HCF = 48$ 

LCM x HCF = Product of Number

Let be the number = x, y

xy = 48x - y = 8

Ans.78(A)

Numbers can be (12, 4), (16, 3), (6, 8)

Difference between number = 8So number can be 12 and 4

Let PQ=QR=RP= 2x

Area of equilateral triangle =  $\sqrt{3/2}$  x (side)<sup>2</sup> Area of  $\triangle PXY/$  Area of  $\triangle PQR = (x/2x)^2$ = 1:4

Area of QXYR =  $\triangle PQR - \triangle PXY = 4 - 1 =$ 

So required ratio = 1:3Ans.79(C)

Let CP = 100 Profit = 300SP = 400

New CP = 125

Profit = 400 - 125 = 275

Required  $\% = 275/400 \times 100$ = 275/4 = 68.75

**Ans.80(B)** Area of circle =  $\pi$  $R^2 = 154$ 

> $R^2 = 154 \times 7/22$  $R^2 = 49$ R = 7

Side of square = 14



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Area of square = 14x 14 = 196 sq cm

**Ans.81(D)** Tank filled by first tank in 1 min = 1/20Tank emptied by second =1/40Work done in 1 min = 1/20 - 1/40 = 1/40In total 40 minute the tank will be filled

**Ans.82(A)** Ratio of values =  $3 \times 5$ :  $10 \times 2$ :  $20 \times 1$ = 3:4:4Value of currency notes of Rs. 20 denomination =  $4/11 \times 165$ 

 $= 4 \times 15 = 60$ **Ans.83(C)** Central angle =  $15/100 \times 360 = 54^{\circ}$ 

**Ans.84(A)** Require percentage =  $(25 - 20)/20 \times 100 =$ 25 %

**Ans.85(B)** House Rent + Deposit + Cloth = 25 % + 10% + 15 % = 50 %

# General Intelligence and Reasoning

Ans.86(D)

Ans.87(A)  $7 \times 3 = 21$  $9 \times 5 = 45$ 

Ans.88(B)

Ans.89(C) In Ascending order C>D>A>B

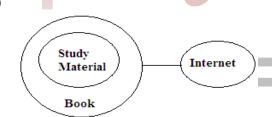
Ans.90(D)

Ans.91(D) All vowels are decreased two step backward and consonants are increased Ans.99(C) two step forward.

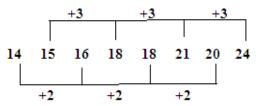
> T H R O N E +2 +2 +2 -2 +2 -2 +2 -2 +2 +2 G T C E V V J T M P C

Ans.92(C) Word: Synonym Solitude means purdah.

Ans.93(B)



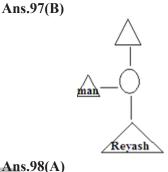
Ans.94(A)



**Ans.95(C)** Both the item in each pair belongs to same category.

Ans.96(D) Minute, Hour, Second are used to mention time. Time is the common factor of all others.

Ans.97(B)



	CASE I			CA	SE II
	Floor	Friend		Floor	Friend
/	6	A		6	D
	5			5	F
	4			4	A
	3	С		3	
	2	D	1	2	

CASE III				
Friend				
E				
С				
D				
F				
A				
В				

Case I and II is not possible.

Ans.100(B)

Ans.101(A) All other are flowers except Kiwi.

D I  $\stackrel{R}{\sim}$  E C T Ans.102(C) From I C > B > E

From II D > C B > A

So using both D > C > B > A, E

**Ans.103(C)** In this figure  $1 \rightarrow 4$ ,  $2 \rightarrow 6$  and  $5 \rightarrow 3$ 

Ans.104(D)

Store	Price per pencil	Price per pen (8 -	Price per Notebook
	(Rs 4 – 5)	10)	(Rs.25)
Store s	4.5	10	28
Store H	4	12	25
Store I	4	11	25
Store J	4.5	8	25

As per the given data, Store J has satisfied all the condition of the girl want all the stationary items she want.

Ans.105(B) After changing position with Tanu Abhinav is 15th from left and 12th from right

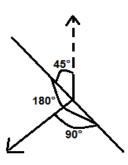
Total = (15+12-1) = 26

**Ans.106(C)**  $48 \div 8 - 7 \times 2 + 18$ = 6-14+18=10

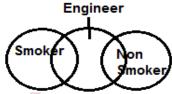
Ans.107(D) Phage, Phalange, Phallic, Pharisee

So Phallic after third word rearrangement.

Ans.108(C)



Ans.109(B)



Engineers can both be smokers and non smokers

**Ans.110(D)** If 24th Oct is Wednesday so

23<sup>rd</sup> - Tuesday

22<sup>nd</sup> -Monday

So Monday Falls on 1st, 8th, 15th, 22nd

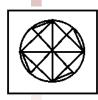
Ans.111(A) C+7 = J

G+6=M

J+6=P

V+6=B

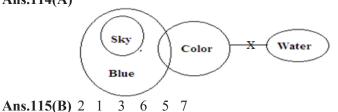
Ans.112(B)



Ans.113(C)  $\mathbf{D} \in \mathbf{E} \in \mathcal{F}(\mathbf{FG}) + \mathbf{H} +$ A B B / (C)

> Last term comes like B two times then E three times so I four time. The element skipped in 1, 2, 3 respectively circled is so next term will be M.

Ans.114(A)



1 2 3 5 6 7



National Deworming Day is a groundbreaking initiative focused on reducing the threat of parasitic worm infections, a widespread health issue affecting over 241 million children in India

Motto: The objective of National Deworming Day is to deworm all preschool and school-age children (enrolled and non-enrolled) between the ages of 1-19 years through the platform of schools and Anganwadi Centers in order to improve their overall health, nutritional status, access to education and quality of life.

Inception: 2015

Theme: "Krimi se chhutkara, sehatmand bhavishya hamara" or "worm-free children healthy

Ministry Involved: Ministry of Health & Family Welfare

Note: India has the highest burden of soil-transmitted helminths--parasitic worms--in the

According to the 2012 report 'Children in India', published by MOSPI 48% of children under the age of five years are stunted and 19.8% are wasted.

> "Don't be distracted by criticism. Remember--the only taste of success some people get is to take a bite out of you."











# BANK | SBI | IBPS | RRB | RBI | LIC | INSURANCE





Subject wise & Level wise (Level - 1 / 2 / 3 / 4) **Books and Materials.** 

(Inclusion of All Previous Years Papers of Bank and Insurance up to 2019)

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