RRB NTPC UG Memory Based Mock (7 Aug Exam)

Q1. Which is known as laughing gas?
(a) SO_2
(b) N_2O
(c) CO
(d) CH4

Q2. Kuchipudi is one of the major dance forms of India that originated in the state of _____.
(a) Kerala
(b) Assam
(c) Andhra Pradesh
(d) Uttar Pradesh

Q3. Which of the following is not a Jain festival?
(a) Daslakshan Parv
(b) Mahavir Jayanti
(c) Sugandh Dashmi Parv
(d) Badi Satam

Q4. Bathukamma is a unique flower festival of which state of India?
(a) Goa
(b) Telangana
(c) Himachal Pradesh
(d) Arunachal Pradesh

Q5. Cerebrospinal fluid is formed by
(a) Duramater
(b) Choroid plexus
(c) Arachnoid villi
(d) Piamater

Q6. In temperate climate under normal conditions, the maximum heat loss of the body takes place through
(a) Radiation
(b) Evaporation
(c) Conduction
(d) None of these

Q7. Who was the founder of Buddhism?
(a) Mahavir
(b) Siddhartha
(c) Chanakya
(d) Ashoka the great

Q8. Who won the Women's Premiere League WPL 2025 title?
(a) Chennai Super Kings
(b) Mumbai Indians
(c) Royal Challengers Bangalore
(d) Delhi Capitals

Q9. During the Bonalu festival, special poojas are performed for which goddess on the first and last days?
(a) Goddess Lakshmi
(b) Goddess Saraswati
(c) Goddess Durga
(d) Goddess Yellamma

Q10. Who is the founder of Haryanka Dynasty?
(a) Ajatashatru
(b) Harshvardhan
(c) Bimbisara
(d) Ghananand

Q11. Who among the following was appointed as the Director of the Central Bureau of Investigation (CBI) in May 2023?
(a) Praveen Sood
(b) Debadatta Chand
(c) Shantanu Roy
(d) Rakesh Asthana

Q12. Which is the oldest Veda?
(a) Yajurveda
(b) Samaveda
(c) Rigveda
(d) Atharvaveda

Q13. Identify an element that does NOT belong to period 4.
(a) Zinc
(b) Potassium
(c) Calcium
(d) Lithium

Q14. Choose the INCORRECT statement about lichens.
(a) Fungi and cyanobacteria both live in lichens independently.
(b) Lichens contain cyanobacteria.
(c) Lichens are seen as slow-growing large coloured patches on the bark of trees.
(d) Fungi are found in lichens living a symbiotic life.

Q15. 1 horse power (hp) = ___ MW.
(a) 1.746 MW
(b) 746×10^{-6} MW
(c) 3.746×10^{-3} MW
(d) 4.746×10^{6} MW

Q16. If a time period of 0.01 seconds is given, what is the corresponding frequency?
(a) 100 Hz
(b) 1000 Hz
(c) 10 Hz
(d) 10000 Hz

Q17. Which physicist was famous for the gold foil experiment?
(a) John Dalton
(b) Niels Bohr
(c) JJ Thomson
(d) Ernest Rutherford

Q18. Where is the headquarter of the WTO located?
(a) Washington, D.C.
(b) New York
(c) Rome
(d) Geneva

Q19. What does the Ctrl + V shortcut key do?
(a) Cuts the selected content
(b) Saves the document
(c) Pastes the copied content
(d) Finds text in a document

Q20. What is the theme of World Asthma Day 2025?
(a) Closing Gaps in Asthma Care
(b) Asthma Care for All
(c) Make Inhaled Treatments Accessible for All
(d) Better Breathing, Better Living

Q21. Who among the following was the founder of the slave dynasty who was the army commander of Muhammad Ghori earlier?
(a) Qutbuddin Aibak
(b) Iltutmish
(c) Nasiruddin Mahmud Shah
(d) Muizuddin Bahram

Q22. Which of the following festival of Tamil Nadu is dedicated to river Cauvery?
(a) Pongal
(b) Aadi Perukku
(c) Onam
(d) Thai Poosam

Q23. What is the theme for World Homeopathy Day 2025?
(a) Integrative Healthcare and Holistic Healing
(b) Enhancing Global Homeopathy Reach
(c) Adhyayan, Adhyaapan, Anusandhaan – Education, Practice and Research
(d) Homeopathy for a Healthier Tomorrow

Q24. The founder of the Pala empire was:
(a) Rayala
(b) Gopala
(c) Devapala
(d) Dharmapala

Q25. 'Bhagirathi' and 'Alaknanda' rivers confluence at:
(a) Joshimath
(b) Haridwar
(c) Karanprayag
(d) Devaprayag

Q26. What is the theme of World Wildlife Day 2025?
(a) Partnerships for Wildlife Conservation
(b) Recovering Key Species for Ecosystem Restoration
(c) Wildlife Conservation Finance: Investing in People and Planet
(d) Sustaining All Life on Earth

Q27. Who was the founder of Arya Samaj?
(a) Rabindranath Tagore
(b) Dayanand Saraswati
(c) Keshub Chandra Sen
(d) Swami Vivekananda

Q28. Ngozi Okonjo-Iweala, who was selected for the post of the Director General of the World Trade Organisation (WTO) until 31 August 2025, belongs to which African country?
(a) South Africa
(b) Algeria
(c) Suden
(d) Nigeria

Q29. Rekha Gupta belongs to which Indian state originally?
(a) Uttar Pradesh
(b) Haryana
(c) Punjab
(d) Madhya Pradesh

Q30. Who has been appointed as India's new Chief Election Commissioner (CEC) in 2025?
(a) Rajiv Kumar
(b) Sukhbir Singh Sandhu
(c) Vivek Joshi
(d) Gyanesh Kumar

Q31. What is the theme for World Radio Day 2025?
(a) Radio and Peace
(b) Radio and Trust
(c) Radio and Climate Change
(d) Radio and Diversity

Q32. The theme for World Wetland Day 2025 is:
(a) Protecting Wetland for our Common Future
(b) Wetlands for sustainable cities
(c) Wetlands and Indigenous knowledge: Preserving cultural heritage
(d) Wetlands and sustainable agriculture

Q33. Who was appointed as the Director General of the Central Reserve Police Force (CRPF) in January 2025?
(a) Gyanendra Pratap Singh
(b) Kuldiep Singh
(c) Rakesh Asthana
(d) Sujoy Lal Thaosen

Q34. Who is known as the 'Napoleon of India'?
(a) Chandragupta
(b) Kumaragupta
(c) Samudragupta
(d) Skandagupta

Q35. World water day is celebrated on _____.
(a) 26 August
(b) 15 August
(c) 8 March
(d) 22 March

Q36. What is the theme of World AIDS Day 2024?
(a) End Inequalities, End AIDS
(b) Take the Rights Path: My Health, My Right!
(c) Equalize
(d) Together for a Better Tomorrow

Q37. What does the shortcut "Ctrl + P" do in most applications?
(a) Open a new document
(b) Print the current document
(c) Save the document
(d) Paste content

Q38. The Ravi, Chenab and Jhelum are tributaries of river:
(a) Indus
(b) Tungabhadra
(c) Kaveri
(d) Krishna

Q39. Which of the following is the capital of Ukraine?
(a) Athens
(b) Kyiv
(c) Bogota
(d) Prague

Q40. Who was the first female Governor of India?
(a) Kamala Nehru
(b) Madam Bikaji Kama
(c) Sarojini Naidu
(d) Vijaya Lakshmi Pandit

Q41. What is the average of 132, 146, 218, 232, 321 and 223?
(a) 214
(b) 212
(c) 208
(d) 218

Q42. If X:Y = 2:5 and Y :Z = 3:2, then what is the value of Y: (X+Z)?
(a) 14:13
(b) 15:13
(c) 15:16
(d) 15:17

Q43. A certain sum gives Rs 4485 as compound interest (compounded annually) at the rate of 30 per cent per annum at the end of 2 years . What is that sum?
(a) Rs 8850
(b) Rs 6500
(c) Rs 6700
(d) Rs 6850

Q44. A microwave was sold at a loss of 20%. If it was sold for Rs.2,000 more, there would have been a gain of 20%. What is the cost price of the microwave?
(a) Rs. 7,000
(b) Rs. 2,500
(c) Rs. 4,500
(d) Rs. 5,000

Q45. Mahim bought a dozen eggs for Rs 50 and sold them at a profit of 26 percent. What is the selling price of each egg?
(a) 10 rupees
(b) 2.5 rupees
(c) 5.25 rupees
(d) 4 rupees

Q46. The ratio of money with Kishore to Pradeep is 5 : 11 and that with Pradeep to Sandeep is 6 : 14. If Kishore has Rs. 570, then Sandeep has (in Rs.):
(a) 2,926
(b) 3,456
(c) 2,456
(d) 3,026

Q47. Find the volume of cone which has base radius as 7 cm and height as 12 cm. (The value of π is227722)
(a) 576 cm^3
(b) 616 cm^3
(c) 512 cm^3
(d) 289 cm^3

Q48. Speed of a car is 45 km/hr. How much distance can it travel in 50 seconds?
(a) 650 metre
(b) 575 metre
(c) 550 metre
(d) 625 metre

Q49. If the length and breadth of a rectangle are increased by 30 percent and 25 percent respectively, then by what percent will its area increase?
(a) 62.5 percent
(b) 60 per cent
(c) 55 percent
(d) 56.5 percent

Q50. 3% of what number is the sum of 4% of 12 and 6% of 80?
(a) 413
(b) 445
(c) 176
(d) 216

Q51. What is the least common multiple (LCM) of 336, 528, and 240?
(a) 16620
(b) 17240
(c) 19200
(d) 18480

Q52. The average weight of 8 people increases by5225 kg if a new person replaces one weighing 50 kg. What is the weight of the new person?
(a) 72 kg
(b) 70 kg
(c) 75 kg
(d) 80 kg

Q53. What is the smallest possible number which when divided by 7, 9 and 11 leaves a remainder 2 in each case?
(a) 600
(b) 695
(c) 750
(d) 693

Q54. If the simple interest earned at 10 percent per annum is Rs 1000 at the end of 5 years, then what should be the principal amount?
(a) Rs 2000
(b) Rs 2500
(c) Rs 1000
(d) Rs 1500

Q55. A dealer sold5665th of his goods at 30 percent profit and the remaining at the cost price. What is his overall gain percent?
(a) 27.27 percent
(b) 25 percent
(c) 22.5 percent
(d) 30 percent

Q56. Compound interest on a sum when interest is compounded annually. equals Simple interest if time is:
(a) 2 years
(b) 1.5 years
(c) 0.5 year
(d) 1 year

Q57. The value of 40 - 3 × [10 + 6 × { 20 - 10 (6 - 5) × 2} ÷ 47] is:
(a) 7
(b) 5
(c) 1
(d) 10

Q58. If33 tanA = 3 sinA, find the value of(23cosec□A×tan□A)(23cosecA×tanA)
(a) 6
(b) 33
(c) 2323
(d) 2

Q59. The ratio of the lengths of two corresponding sides of two similar triangles is 9 : 1. The ratio of the areas of these two triangles, in the order mentioned, is:
(a) 82 : 2
(b) 9 : 1
(c) 81 : 1
(d) 9√9 : 1

Q60. If 2.5 : 40.6 :: 40.6 : x, then find the value of x
(a) 665.032
(b) 658.357
(c) 655.425
(d) 659.344

Q61. In what ratio should sugar costing Rs. 78 per kg be mixed with sugar costing Rs. 36 per kg so that by selling the mixture at Rs. 86.8 per kg, there is a profit of 24%?
(a) 32 : 9
(b) 34 : 8
(c) 32 : 10
(d) 36 : 10

Q62. What is the mode of the following data?
41, 55, 45, 48, 40, 47, 41, 47, 54, 44, 49, 48, 53, 54, 50, 53, 41, 46
(a) 41
(b) 55
(c) 48
(d) 45

Q63. The ages of Gyanendra and Arbind are in the ratio 6:5 , If the sum of their ages is 55 years, then what will be the ratio of their ages after seven years form now
(a) 32 : 37
(b) 5 : 6
(c) 6 : 5
(d) 37 : 32

Q64. Ram, Ravi and Reena can do a piece of work in 16, 20 and 24 days, respectively. They began the work together but Ravi left the work 5 days before the completion of the work. In how much approx. time did they finish the work together?
(a) 10 Days
(b) 11 Days
(c) 8 Days
(d) 12 Days

Q65. A train leaves Hyderabad at 4:00 A.M. and reaches Vijayawada at 8:00 A.M. the same day. Another train leaves Vijayawada at 6:00 A.M. and reaches Hyderabad at 9:30 A.M the same day. At what time do the two trains cross each other?
(a) 6:45 A.M.
(b) 7:45 A.M.
(c) 6:56 A.M.
(d) 7:56 A.M.

Q66. The ratio of the speeds of a boat while going upstream and going downstream is 2 : 3 and the sum of these two speeds is 15 km/h. What is the speed of the stream?
(a) 3.5 km/h
(b) 1.5 km/h
(c) 3 km/h
(d) 2.5 km/h

Q67. Simplify the following expression:
9992×100089992×10008
(a) 91999964
(b) 99999936
(c) 9999964
(d) 9999936

Q68. Find the circumference of a circle whose area is 154m2.m2.
(a) 44 m
(b) 29.5 m
(c) 39 m
(d) 52 m

Q69. If x+1xx1=26, then the value ofx2x2+1x2x21 =?
(a) 24
(b) 676
(c) 674
(d) 2

Q70. The curved surface area of a right circular cylinder of height 56 cm is 1408 cm^2. Find the diameter of the base of the cylinder.
(a) 8 m
(b) 0.04m
(c) 0.08 m
(d) 0.008m

Q71. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
(1) Some wood are chairs.
(2) All chairs are tables.
(3) No table is a bed.
Conclusions:
(1): Some wood are table.
(II): All chairs are beds.
(a) Both conclusions (I) and (II) follow
(b) Only conclusion (II) follows.
(c) Neither conclusion (I) nor (II) follows
(d) Only conclusion (I) follows.

Q72. Seven people L, M, N, O, P, Q and R are sitting in a straight line facing the north (but not necessarily in the same order). M is sitting at one of the ends of the line. P is sitting to the immediate right of M. N is sitting to the immediate right of P and the immediate left of L. Q is sitting to the immediate right of O and the immediate left of R. L is sitting to the immediate right of N. Who is sitting between M and N?
(a) L
(b) O
(c) R
(d) P

Q73. Select the term from the given options that can replace the question mark (?) in the following series.
DFH, EHK, FJN, ?
(a) GLQ
(b) GLT
(c) GJN
(d) GMR

Q74. Select the option that is related to the third word in the same way as the second word is related to the first word.
Stop : Cease :: Start : ?
(a) End
(b) Commence
(c) Endeavour
(d) Set up

Q75. Select the number from among the given options that can replace the question mark (?) in the following series.
342, 215, 124, ?, 26, 7
(a) 61
(b) 65
(c) 67
(d) 63

Q76. Select the number from among the given options that can replace the question mark (?) in the following series.
51, 54, 59, ?, 75, 86
(a) 64
(b) 66
(c) 65
(d) 69

Q77. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
1. All books are purses.
2. All yellow are purses .
3. Some papers are yellow.
Conclusions:
I. Some bags are yellow.
II. Some purses are papers.
(a) Only conclusion II follows.
(b) Both conclusions I and II follows.
(c) Only conclusion I follows.
(d) Neither conclusion I nor II follows.

Q78. Veer is the brother of Rohan and Hari. Rita is Hari's mother. Ram is Rohan's father. How is Veer related to Ram?
(a) Son
(b) Brother
(c) Son's son
(d) Father

Q79. Diksha walks 20 m towards the south, turns left and walks 30 m, after which, she turns right and walks 30 m. Again, she turns right and walks 30 m, after which, she takes a final right turn and walks 20 m. How far is she from the starting point?
(a) 30 m
(b) 40 m
(c) 10 m
(d) 50 m

Q80. Select the number from among the given options that can replace the question mark (?) in the following series.
203, 199, 208, 192, 217, 181, ?
(a) 245
(b) 230
(c) 229
(d) 239

Q81. Eight people are living on eight different floors of the building in such a way that the ground floor is numbered 1, the floor above that is numbered 2, and so on till the top floor is numbered 8. Only two people live between C and E. Only two people live between E and D. F lives on the topmost floor. G lives immediately above B. A lives on one of the floors below E but above D and H. D lives on the ground floor. How many floors are there between the floors on which C and H live?
(a) One
(b) Three
(c) Two
(d) Four

Q82. Rohit is looking for his brother. He started from a point and went 110 m towards the west before turning to his left. Then he went 40 m, turned to his left and went 50 m to look for his brother at his uncle's place. His brother was not there. From there, he went 120 m to his north before meeting his brother at point X. What is the shortest distance between point X and the starting point of Rohit?
(a) 100m
(b) 140 m
(c) 130 m
(d) 120 m

Q83. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the letter-cluster that is different.
(a) ORVZ
(b) MQUY
(c) JNRV
(d) TXBF

Q84. Find the missing term in the following number series :
4, 9, 25, 49, 121, _____.
(a) 225
(b) 144
(c) 196
(d) 169

Q85. In a certain code language,
' P + Q ' means ' P is the brother of Q ',
' P - Q ' means ' P is the daughter of Q ',
' P × Q ' means ' P is the wife of Q ' and
' P ÷ Q^' means ' P is the son of Q '.
How is A related to E if ' A + B - C × D ÷ E '?
(a) Brother
(b) Daughter's son
(c) Son
(d) Son's son

Q86. Seven friends P, Q, R, S, T, U and V are sitting around a circular table facing the centre. R is next to the left of U and V is second to the left of R. P is sitting third to the left of T. Q is between S and T.
What is the position of U ?
(a) Fourth to the right of S
(b) U is between V and R
(c) To the immediate left of R
(d) Immediate neighbour of P

Q87. Ten boys named A, B, C, D, E, F, G, H, K and L are sitting around a circular table facing the centre. L is fourth to the right of D. E is second to the left of K. G is second to the left of D. F is third to the left of G. L is to the immediate right of B. E is third to the right of L. H and A are immediate neighbours. Who is sitting third to the right of C?
(a) H
(b) D
(c) F
(d) K

Q88. A, B, C, D, E, F and G are sitting around a circular table facing the centre (but not necessarily in the same order). G sits to the immediate left of B. A sits to the immediate left of D. D sits second to the left of E. C sits third to the left of B. How many people sit between B and D when counted from the left of D?
(a) 1
(b) 2
(c) 3
(d) 4

Q89. In a certain code language, BABE is coded as YZYV then what is the code for ACID?
(a) ZXNR
(b) YVOS
(c) ZXRW
(d) ZXWR

Q90. Which of the following letters will replace the question mark (?) in the given series?
F, G, J, K, N, ?
(a) O
(b) P
(c) Q
(d) R

Q91. What will come in place of the question mark (?) in the following equation if '+' and '–' are interchanged and '×' and '÷' are interchanged?
1125 × 45 ÷ 39 – 17 + 19 = ?
(a) 992
(b) 973
(c) 379
(d) 975

Q92. If '+' means '–', '–' means '×', '×' means '÷' and '÷' means '+', then what will come in place of the question mark (?) in the following equation?
32 ÷ 14 + 16 – 8 × 4 = ?
(a) 14
(b) 18
(c) 16
(d) 22

Q93. What will come in the place of the question mark (?) in the following equation, if '+' and '–' are interchanged and '×' and '÷' are interchanged?
38 ÷ 21 + 436 × 4 – 73 = ?
(a) 761
(b) 762
(c) 764
(d) 763

Q94. Seven boxes A, B, C, D, E, F and G are kept one over the other but not necessarily in the same order. B is kept second from the bottom. Only three boxes are kept between B and G. F is kept at one of the positions below B. Only E is kept between G and D. A is kept at one of the positions above G. How many boxes are kept between A and E?
(a) 1
(b) 4
(c) 2
(d) 3

Q95. Select the correct option that indicates the arrangements of the given words in a logical and meaningful order.
1. Nucleus
2. Molecule
3. Atom
4. Proton
5. Compound
(a) 4, 1, 3, 5, 2
(b) 5, 3, 2, 4, 1
(c) 5, 2, 3, 4, 1
(d) 4, 1, 3, 2, 5

Q96. Three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the letter-cluster pair that does NOT belong to that group?(Note: The odd one out is not based on the number of consonants/vowels or their positions in the letter-cluster.)
(a) HT - RC
(b) QC - AL
(c) JO - LS
(d) CO - MX

Q97. Select the one which is different from the other three alternatives.
(a) Diamond
(b) Bangle
(c) Ring
(d) Necklace

Q98. If in a code language, 'EAR' is coded as JFW, and 'CUP' is coded as HZU, then what will 'LIGHT' be coded as?
(a) QNLMY
(b) ORTSG
(c) JGEFR
(d) NKIJV

Q99. If 1st January is Friday, what will be the first day of March in a leap year?
(a) Friday
(b) Tuesday
(c) Thursday
(d) Wednesday

Q100. If 26 September 2005 was Monday, then what was the day of the week on 26 September 2017?
(a) Saturday
(b) Wednesday
(c) Sunday
(d) Tuesday

Solutions

S1. Ans.(b)
Sol. The correct answer is: (B) N_2O
Explanation:
- **N_2O** is **Nitrous Oxide**, commonly known as **laughing gas**.
- It has a mild anesthetic effect and can cause a feeling of euphoria, hence the name "laughing gas".
- It is used in **dentistry and surgery** as an anesthetic and analgesic.

Information Booster:
- **Chemical formula**: N_2O
- **Discovery**: By Joseph Priestley in 1772.
- Colorless, non-flammable gas with a slightly sweet smell.
- Used in food industry for **whipped cream dispensers**.
- Also used as an **oxidizer in rocket propulsion**.

S2. Ans.(c)
Sol. The correct answer is (c) **Andhra Pradesh**.
•→**Kuchipudi** is a classical dance form that originated in the **Andhra Pradesh** state of India. It is characterized by graceful, fast movements, and expressive facial gestures.
•→The dance form combines **classical music**, **drama**, and **dance** to tell a story, often drawing from **mythological themes**. It has been performed for centuries in religious temples, particularly in the region of **Kuchipudi** village in Andhra Pradesh.
Information Booster:
•→**Kuchipudi** derives its name from the village **Kuchipudi**, where it originated.
•→It is one of the eight classical dance forms of India, and it is known for its **dynamic footwork**, **abhinaya (expression)**, and **group performances**.
Additional Information:
•→The dance form was popularized by **Sidhyendra Yogi** in the 17th century and later modernized by **Vempati Chinna Satyam** in the 20th century.
•→**Kuchipudi** is typically performed as a solo or group dance and is performed to classical Carnatic music.

S3. Ans.(d)
Sol. The correct answer is option (d) Badi Satam
Explanation
- **Badi Satam** is a **Hindu festival**, particularly observed in Rajasthan and Gujarat, mostly by the **Sindhi community**, dedicated to Goddess Sheetala.
- It is not related to Jain doctrines or observances.
- In contrast, the other three—**Daslakshan Parv**, **Mahavir Jayanti**, and **Sugandh Dashmi Parv**—are all part of Jain religious traditions.
- Jain festivals focus on self-discipline, non-violence, spiritual reflection, and commemorating Tirthankaras, especially **Lord Mahavir**.

Information Booster
- **Daslakshan Parv**: Celebrated mainly by Digambar Jains for 10 days during Paryushan.
- **Mahavir Jayanti**: Birth anniversary of Lord Mahavir (24th Tirthankara).
- **Sugandh Dashmi Parv**: Celebrated in honor of **Goddess Sugandha**, associated with Jain traditions.
- **Badi Satam**: Venerated in Hinduism for protection from diseases; not Jain.

Additional Knowledge:

- **Daslakshan Parv** – Digambar Jain festival, focuses on 10 virtues.
- **Mahavir Jayanti** – Celebrates birth of Lord Mahavir.
- **Sugandh Dashmi** – Devotional observance in Jainism.
- **Badi Satam** – Hindu Sheetala Mata puja, not Jain.

S4. Ans.(b)
Sol. The correct answer is: (B) Telangana
Explanation:

- **Bathukamma** is a unique **flower festival** celebrated in the state of **Telangana**, India.
- The festival is dedicated to **Goddess Gauri**, the incarnation of **Parvati**, and is primarily celebrated by **Telugu-speaking women**.
- During the festival, women create beautiful arrangements of flowers, which are arranged in a stack and are offered to the goddess as part of the celebration.

Information Booster:

- The festival takes place during the **nine days of Navratri** in the month of **September or October**.
- **Bathukamma** is a celebration of **life, nature, and femininity** and is an expression of love for the environment, particularly flowers.
- The festival is recognized by the **Telangana Government** as the state's **official festival** and has been promoted as a cultural symbol.

Additional Information:

- **Goa**: Goa celebrates festivals like **Shigmo** and **Carnival**, but **Bathukamma** is specific to **Telangana**.
- **Himachal Pradesh**: Known for festivals like **Lohri**, but **Bathukamma** is not celebrated here.
- **Arunachal Pradesh**: **Nyokum** and **Mopin** are major festivals in Arunachal Pradesh, but **Bathukamma** is celebrated only in **Telangana**.

S5. Ans.(b)
Sol. Correct Answer: (b)
Information Booster: •→**Cerebrospinal fluid (CSF)** is secreted mainly by the **choroid plexus**, a network of capillaries in the **ventricles** of the brain.
•→CSF cushions the brain and spinal cord, removes waste, and provides nutrients.
•→It circulates through the **subarachnoid space** and is reabsorbed by **arachnoid villi**.
Additional Knowledge: •→Total CSF volume in adults is about **150 mL**, replaced ~3–4 times daily.
•→**Lumbar puncture (spinal tap)** is done to collect CSF for diagnostic purposes.
•→CSF abnormalities help diagnose infections (e.g., meningitis), hemorrhages, or neurological disorders.

S6. Ans.(a)
Sol. Correct Answer: (a)
Information Booster: •→In a **temperate environment** (around 20–25°C), the human body primarily loses heat by **radiation**, which accounts for up to **60% of heat loss**.
•→Radiation involves **infrared heat transfer** from the body to the cooler environment without physical contact.
•→Other methods include **evaporation** (sweating), **convection**, and **conduction**, but radiation dominates under resting, non-exercising conditions.
Additional Knowledge: •→During **exercise or high temperatures**, **evaporation** becomes the dominant form of heat loss.
•→**Conduction** requires contact with cooler surfaces, while **convection** depends on air or water movement.
•→Disruption in heat loss can lead to conditions like **hypothermia or hyperthermia**.

S7. Ans.(b)
Sol. The correct answer is (b) **Siddhartha**
Siddhartha Gautama, also known as **Gautama Buddha**, was the founder of **Buddhism**.
Key Details:

- **Birth:** Born in **563 BCE** in **Lumbini** (modern-day Nepal) as a prince of the **Shakya clan**.
- **Enlightenment:** Renounced his princely life and attained **enlightenment** under the Bodhi tree in **Bodh Gaya**, becoming the **Buddha** ("The Enlightened One").

Significance of Buddhism:

- **Core Teachings:** Focuses on the **Four Noble Truths** and the **Eightfold Path** as a means to achieve liberation (**Nirvana**) from the cycle of birth and death (**Samsara**).
- **Philosophy:** Promotes principles of **non-violence**, **compassion**, and **mindfulness**.

Additional Information:

- **Mahavir:**
  - The 24th **Tirthankara** of Jainism, a contemporary of Buddha.
- **Chanakya:**
  - A renowned ancient Indian philosopher, economist, and political strategist associated with the establishment of the **Mauryan Empire**.
- **Ashoka the Great:**
  - A Mauryan emperor who embraced **Buddhism** after the **Kalinga War** and played a significant role in spreading Buddhism across India and beyond.

S8. Ans.(b)

Sol. The correct answer is: (A) Mumbai Indians

Explanation:

The **Mumbai Indians** clinched their second Women's Premier League (WPL) title in 2025 by defeating the **Delhi Capitals** in a thrilling final.Held on **March 15, 2025**, at the **Brabourne Stadium** in Mumbai, the match concluded with Mumbai Indians scoring **149/7** in their 20 overs, while Delhi Capitals managed **141/9**, falling short by **8 runs**.

Information Booster:

- **Mumbai Indians' Performance:**
  - **Captain:**Harmanpreet Kaur led the team with a captain's knock of **66 runs off 44 balls**.
  - **Player of the Match:**Harmanpreet Kaur was awarded the **Player of the Match** for her outstanding performance.
  - **Key Contributors:Nat Sciver-Brunt** (523 runs) and **Amelia Kerr** (18 wickets) were among the top performers throughout the tournament.
- **Delhi Capitals' Journey:**
  - Despite a strong season, the Delhi Capitals faced their **third consecutive WPL final defeat**.
  - **Marizanne Kapp** contributed **40 runs off 26 balls**, and **Jemimah Rodrigues** added **30 runs off 21 balls**, but their efforts were insufficient to secure the win.

Additional Information:

- **Mumbai Indians' Legacy:**
  - With this victory, Mumbai Indians became the first team to win **two WPL titles**, having previously won in 2023.
  - The franchise has now secured **12 titles across all formats**, including the men's IPL.
- **Delhi Capitals' Consistency:**
  - Despite their consistent performances, the Delhi Capitals have yet to secure a WPL title, finishing as runners-up in all three seasons.

S9. Ans.(d)

Sol. The correct answer is option (d) Goddess Yellamma

Explanation

1. **Associated Deity**: Although Bonalu is primarily dedicated to **Goddess Mahakali**, **special poojas are offered to Goddess Yellamma** on the **first and last days** of the festival.
2. **Who is Yellamma?**: Goddess Yellamma is a revered form of **Shakti** in the southern states, especially in Telangana and Karnataka, and is associated with **protection and fertility**.
3. **Role in Bonalu**: Her worship during Bonalu marks the **beginning and conclusion** of the rituals, signifying both purification and thanksgiving.
4. **Ritual Practices**: These poojas include **chanting, offerings, processions, and musical performances** in her honor.
5. **Regional Belief**: Yellamma is seen as another manifestation of the Mother Goddess, closely linked to local folk traditions and healing rituals.

Information Booster
•→Bonalu starts and ends with poojas to **Goddess Yellamma**
•→Yellamma is a form of **Shakti**, associated with **healing and fertility**
•→Other key goddess during Bonalu: **Mahakali**
•→Yellamma temples are prominent in **Telangana and Karnataka**
•→Represents **folk traditions** rooted in rural and tribal communities

S10. Ans.(c)
Sol. The correct answer is (C) Bimbisara.
Explanation:
The **Haryanka Dynasty** was founded by **Bimbisara**, who ruled the kingdom of **Magadha** around the 5th century BCE. He was a contemporary of **Gautama Buddha** and was known for his contributions to the expansion and consolidation of the Magadhan empire.
Information Booster:

- **Bimbisara** (the founder of the **Haryanka Dynasty**) was the first king of **Magadha** and ruled from around **544 BCE to 492 BCE**. He was known for his administrative skills, military prowess, and diplomatic relations with neighboring kingdoms.
- **Bimbisara** laid the foundations for the rise of the **Magadha Empire**, and he was instrumental in establishing the early dominance of Magadha over neighboring regions like **Kosala**, **Vatsa**, and **Anga**.
- **Ajatashatru**, the son of **Bimbisara**, succeeded him and further expanded the empire. He is known for his **conflict with his father** and his famous **war with the Licchavis** of Vaishali, a neighboring republic. Ajatashatru also contributed to the development of **Patliputra (modern Patna)**, which later became a major capital in Indian history.
- The **Haryanka Dynasty** played a significant role in the development of **Buddhism**. Both **Bimbisara** and his son **Ajatashatru** had relations with **Gautama Buddha**. Bimbisara was one of Buddha's early patrons and offered him shelter, while Ajatashatru also interacted with Buddha during his reign.
- After **Ajatashatru**, the **Haryanka Dynasty** was succeeded by the **Shishunaga Dynasty**, marking the end of the Haryanka dynasty's reign.

S11. Ans.(a)
Sol. The correct answer is (a) Praveen Sood.
Explanation:
In **May 2023**, **Praveen Sood** was appointed as the **Director of the Central Bureau of Investigation (CBI)**. He is a senior **Indian Police Service (IPS)** officer of the 1986 batch from the **Karnataka cadre**.
Prior to his appointment as the CBI Director, he held several significant positions in law enforcement, including **Director General of Police** in Karnataka. His extensive experience in policing and investigations made him the choice for this prestigious role.
Information Booster:

- **Praveen Sood** succeeded **Rakesh Asthana**, who was the previous CBI Director.
- The **Director of the CBI** is a key position within India's **law enforcement**, overseeing high-profile investigations and the overall functioning of the agency.
- The CBI is tasked with investigating major criminal cases, including corruption and serious economic offenses, across the country.
- The Director of the CBI is appointed for a fixed term of **two years** under the supervision of a selection committee headed by the **Prime Minister**.
- **Praveen Sood** has a **strong background** in handling sensitive investigations, particularly those related to **corruption** and **crime**.
- The appointment process involves careful scrutiny, and the Director is expected to uphold the agency's **independence** and **integrity**.

S12. Ans.(c)
Sol. The correct answer is: (c) Rigveda
Explanation:

- The **Rigveda** is the oldest of the four Vedas. It is considered the foundational text of Vedic literature and contains hymns dedicated to various deities, including Agni, Indra, and Varuna. The Rigveda is dated to have been composed around 1500 BCE to 1200 BCE, making it the earliest of the Vedic texts.

Information Booster:

- The Rigveda consists of 10 books (Mandalas), containing over 1,000 hymns or verses.
- It provides insight into the early Vedic religion, rituals, and philosophical thoughts.
- The hymns in the Rigveda are primarily praises of natural forces and deities.
- It is written in Vedic Sanskrit and forms the foundation of much of Hindu philosophy and ritual.
- The Rigveda was orally transmitted for centuries before being compiled into written form.

Additional Information:

- **Yajurveda**: The **Yajurveda** focuses on rituals and sacrifices and is a more practical guide to performing Vedic ceremonies.
- **Samaveda**: The **Samaveda** is known for its musical chants and is considered the Veda of melodies and songs.
- **Atharvaveda**: The **Atharvaveda** is the Veda that deals with everyday life, including spells, charms, and healing practices.

S13. Ans.(d)

Sol. The correct answer is (d) Lithium

- **Lithium** is an element in **Period 2** of the periodic table, not in Period 4. It is located in Group 1, known as alkali metals.
- **Zinc (A)**, **Potassium (B)**, and **Calcium (C)** are all in **Period 4**.
    - **Zinc** (A) is in Group 12, a transition metal.
    - **Potassium** (B) is in Group 1, an alkali metal.
    - **Calcium** (C) is in Group 2, an alkaline earth metal.

Information Booster:

- **Period 4** elements begin with **Potassium (K)** and go up to **Krypton (Kr)**, covering a wide range of elements across different groups.
- **Lithium**, a light metal, is essential in batteries and mental health treatment, but it belongs to Period 2 and is chemically distinct from Period 4 elements.
- **Potassium** is highly reactive and is used in fertilizers, **Calcium** is crucial in bone structure, and **Zinc** is vital for immune function.

Additional Information:

- **Lithium** is in **Period 2**, a much lighter and smaller period than Period 4.
- **Period 4** includes heavier elements such as **Zinc** and **Potassium**, and is essential for both biological functions and industrial applications

S14. Ans.(a)

Sol. The correct answer is (a) Fungi and cyanobacteria both live in lichens independently.

- **Lichens** are a **symbiotic association** between **fungi** and **cyanobacteria** or **algae**.
- The relationship is **mutually beneficial**, not independent:
    - The **fungus** provides a structure and absorbs moisture and nutrients from the environment.
    - The **cyanobacteria** (or algae) carry out **photosynthesis**, producing food for both organisms.
- The statement in **A** is incorrect because the organisms in **lichens** do not live independently; they are **interdependent** in a **symbiotic** relationship.

Information Booster:

• **Symbiosis** is a biological term where two different species live together in close association, benefiting from each other.
• In **lichens**, the **fungus** and **cyanobacteria/algae** are so closely integrated that they cannot survive independently in most cases.
• **Lichens** are often seen growing on tree bark, rocks, or other surfaces as **slow-growing, coloured patches**.
• The **cyanobacteria** in **lichens** are responsible for producing food (via photosynthesis), and some species also fix nitrogen, enriching the environment.
• Lichens are **used as bioindicators** of air quality, as they are sensitive to pollutants like sulfur dioxide.

S15. Ans.(b)

Sol. The correct answer is:
B: 746×10^{-6} MW
Explanation:
1 horsepower (hp) is equivalent to **746 watts (W)**.
To convert **746 watts** to **megawatts (MW)**:
1 MW=1,000,000 W1 \, \text{MW} = 1,000,000 \, \text{W}1MW=1,000,000W

So, **746 watts** is:
746 W=746×10−6 MW746 \, \text{W} = 746 \times 10^{-6} \, \text{MW}746W= 746×10-6 MW
Thus, **1 horsepower (hp) = 746 × 10^{-6} MW**.

S16. Ans.(a)
Sol. Formula for Frequency:
Frequency (f) is the reciprocal of the time period (T), so:
f = 1 / T
Given:
Time period **T = 0.01 seconds**
Calculation:
f = 1 / 0.01 = **100 Hz**
Correct Answer:
(A) 100 Hz

S17. Ans.(d)
Sol. The correct answer is: (d) Ernest Rutherford
Explanation:
•→The **Gold Foil Experiment** was conducted by **Ernest Rutherford** in **1909** with the help of **Hans Geiger and Ernest Marsden**.
•→It led to the **discovery of the nucleus** and proposed the **Rutherford atomic model**, where electrons orbit a dense, positively charged nucleus.
Information Booster:
•→The experiment used **alpha particles and a thin gold foil**.
•→Most alpha particles passed through, some deflected → indicating a **dense nucleus**.
•→Replaced **JJ Thomson's plum pudding model**.
•→This was the foundation for **modern atomic models**.
•→Rutherford is known as the **Father of Nuclear Physics**.
•→Later discoveries led to **Bohr's model**, improving upon Rutherford's.
Additional Information:
•→**John Dalton** – Proposed the **Atomic Theory** (1803).
•→**Niels Bohr** – Developed the **Bohr Model** with electron orbits.
•→**JJ Thomson** – Discovered the **electron**, proposed plum pudding model.

S18. Ans.(d)
Sol. The **World Trade Organization (WTO)** has its headquarters in **Geneva**, Switzerland. It was established on **January 1, 1995**, and its headquarters serve as the central hub for managing international trade agreements and resolving trade disputes among member countries.
Key Points:

- **Geneva** is one of the primary centers for international diplomacy and hosts various other important international organizations, including the **World Health Organization (WHO)** and the **International Labour Organization (ILO)**.
- The WTO plays a vital role in overseeing the global trade rules, ensuring trade flows smoothly, and providing a platform for trade negotiations.

Additional Information:

- The **WTO** has 164 member countries (as of 2024), and its primary function is to ensure that trade flows as smoothly, predictably, and freely as possible.
- The **Director-General** of the WTO is responsible for the administration and activities of the organization, which include facilitating negotiations, administering trade agreements, and resolving disputes.

Other Options:

- **Washington, D.C.**: The **International Monetary Fund (IMF)** and the **World Bank** are headquartered in Washington, D.C., not the WTO.
- **New York**: The **United Nations** is headquartered in New York, but the WTO is not located there.
- **Rome**: **FAO (Food and Agriculture Organization)** has its headquarters in Rome, but the WTO is located in **Geneva**, not Rome.

S19. Ans.(c)
Sol. The **Ctrl + V** shortcut key is used to **paste** the content that has been previously copied or cut to the clipboard. This action allows you to insert the copied content into the current location in your document or application.
Important Key Points:
1. **Clipboard Operations**: **Ctrl + V** is a standard shortcut for pasting content from the clipboard into the active window.
2. **Common Use**: It is widely used across applications like word processors, web browsers, and others to insert text, images, or files that were previously copied or cut.
3. **Efficient Workflow**: Using this shortcut enhances productivity by quickly pasting content without needing to use the right-click menu.
Knowledge Booster:
•→**Cuts the selected content**: The shortcut for cutting content is **Ctrl + X**.
•→**Saves the document**: The shortcut for saving a document is **Ctrl + S**.
•→**Finds text in a document**: The shortcut for finding text is **Ctrl + F**.

S20. Ans.(c)
Sol. The correct answer is option (c) Make Inhaled Treatments Accessible for All
Explanation
The theme for **World Asthma Day 2025**, observed on **6th May**, is **"Make Inhaled Treatments Accessible for All."** This theme underscores the global need to bridge access gaps in asthma management, especially in low- and middle-income countries. Inhaled corticosteroids (ICS) are the cornerstone of asthma treatment and help reduce inflammation and symptoms. However, millions of patients lack access to these essential medicines due to high costs, lack of availability, and inadequate healthcare systems. The Global Initiative for Asthma (GINA) chose this theme to advocate for policy changes, better supply chains, and increased public awareness about the importance of inhaled therapy. The theme also reflects a commitment to achieving health equity and reducing preventable deaths due to asthma.
Information Booster
•→Theme for **World Asthma Day 2025**: **"Make Inhaled Treatments Accessible for All"**
•→Focuses on **accessibility and affordability** of inhalers globally
•→Inhaled corticosteroids are key to **long-term asthma control**
•→Emphasizes **health equity**, especially in resource-poor settings
•→Endorsed by **Global Initiative for Asthma (GINA)**
•→Linked to **UN SDG 3**: Ensure healthy lives and promote well-being
Additional Knowledge
(a) Closing Gaps in Asthma Care – This was the **theme for World Asthma Day 2021**. It highlighted disparities in diagnosis, treatment, and healthcare access globally. It urged action on bridging those gaps through better public health systems and education.
(b) Asthma Care for All – This theme was associated with **World Asthma Day 2023**. It emphasized universal asthma care access and encouraged inclusive health planning and improved infrastructure for underserved populations.
(c) Make Inhaled Treatments Accessible for All – This is the **official theme for World Asthma Day 2025**. It focuses on making life-saving inhaled therapies available to all patients, regardless of geography or income, recognizing their role in preventing hospitalizations and deaths.
(d) Better Breathing, Better Living – While not an official theme for any specific World Asthma Day, this phrase is often used in local awareness programs and public health campaigns to promote healthy respiratory practices.

S21. Ans.(a)
Sol. The Correct Answer is A. Qutbuddin Aibak.
Explanation:
Qutbuddin Aibak was the founder of the **Slave Dynasty** and served as **Muhammad Ghori's army commander** before establishing his own rule in India.
Key Points:
- **Qutbuddin Aibak**: The first ruler of the **Slave Dynasty**, he took control after **Muhammad Ghori's death**.
- His rule marked the **beginning of the Delhi Sultanate**.
- He is credited with **starting the construction of Qutb Minar** in Delhi.

Additional Information:
- **Iltutmish**: Successor to **Qutbuddin Aibak**, consolidated the Delhi Sultanate.
- **Nasiruddin Mahmud Shah**: A later ruler, not involved in the foundation of the Slave Dynasty.
- **Muizuddin Bahram**: A ruler during the **Slave Dynasty**, but not its founder.

S22. Ans.(b)
Sol. The correct answer is **(b) Aadi Perukku**
Explanation:
- **Aadi Perukku** is a unique **Tamil festival dedicated to the river Cauvery**, celebrated to honor **water's life-sustaining properties**.
- It is observed on the **18th day of the Tamil month of Aadi** (mid-July to mid-August) when the **Cauvery River is in full flow** due to monsoon rains.

Information Booster:
- **Aadi Perukku** is also known as **Padinettam Perukku**, meaning the "18th rise."
- The festival highlights the **importance of water conservation** and the **agrarian culture** of Tamil Nadu.
- Women pray for the welfare of their family, and newly married couples offer special prayers for a prosperous life.

Additional Knowledge:
- **Pongal:** A major Tamil harvest festival dedicated to the Sun God, celebrated in January.
- **Onam:** A harvest festival primarily celebrated in Kerala, associated with King Mahabali's return.
- **Thai Poosam:** A festival celebrated by Tamil communities in honor of **Lord Murugan**, usually in the Tamil month of Thai (January-February).

S23. Ans.(c)
Sol. Ans. (c)
The theme for World Homeopathy Day 2025 is 'Adhyayan, Adhyaapan, Anusandhaan', which translates to 'Education, Practice and Research'. This theme underscores the need for continuous learning, quality education, and evidence-based research in the field of homeopathy. The focus is on improving standards in homeopathic education, encouraging best practices in clinical environments, and fostering scientific research to validate homeopathic treatments. The 2025 observance is particularly notable for being India's largest-ever homeopathy symposium, hosted in Gandhinagar, Gujarat. Organized by the Ministry of AYUSH and the Central Council for Research in Homoeopathy (CCRH), the event is set to bring together practitioners, students, researchers, and policymakers to deliberate on advancing homeopathy through structured and scientific approaches. This theme aligns with India's broader goal of strengthening traditional medicine systems through modern frameworks.
Information Booster
•→2025 Theme: *Adhyayan, Adhyaapan, Anusandhaan* (Education, Practice, Research)
•→Celebrated on April 10th annually
•→Hosted in Gandhinagar, Gujarat for 2025
•→Organized by Ministry of AYUSH and CCRH
•→Aims to promote scientific rigor in homeopathy
•→Focuses on capacity building and evidence-based practice
Additional Knowledge
(a) Integrative Healthcare and Holistic Healing – This is a broad theme often associated with traditional medicine events but was not selected for World Homeopathy Day 2025. It emphasizes blending modern and alternative therapies for comprehensive care.
(b) Enhancing Global Homeopathy Reach – While promoting the global outreach of homeopathy is an ongoing goal, this was not the official 2025 theme. However, it reflects international aspirations to expand homeopathy in public health.
(c) Adhyayan, Adhyaapan, Anusandhaan – Education, Practice and Research – Correct Answer. This theme promotes academic excellence (*Adhyayan*), professional teaching and mentorship (*Adhyaapan*), and innovative scientific inquiry (*Anusandhaan*). It signifies a holistic approach to advancing homeopathy in line with evidence-based standards and global healthcare trends.
(d) Homeopathy for a Healthier Tomorrow – A generalized theme used in previous years or campaigns but not the official one for 2025. It signifies hope and future-oriented growth for the homeopathy sector.

S24. Ans.(b)
Sol. The correct answer is (b) Gopala.
Gopala was the **founder of the Pala Empire**, which was established in the **8th century CE** in the **Bengal region** of the Indian subcontinent. He came to power around **750 CE** through a democratic process where regional chieftains and local leaders elected him as their ruler, marking a rare instance of an **elected monarch** in Indian history. Gopala's reign marked the beginning of the **Pala dynasty**, which ruled over **Bengal and Bihar** for about **four centuries**.
During his reign:
- Gopala **consolidated power** and established political stability in Bengal, which was previously plagued by anarchy.
- He laid the foundation for the **expansion and prosperity** of the Pala Empire, which was later strengthened by his successors **Dharmapala** and **Devapala**.

- He was a **Buddhist ruler** and patronized **Buddhist learning and culture**, supporting the rise of **Mahayana Buddhism**.

Information Booster:

- **Pala Empire:** Existed from **750 CE to 1174 CE** in **Bengal and Bihar**.
- **Dharmapala**: Son of Gopala, expanded the Pala Empire significantly, making it a dominant power in Northern India.
- **Devapala**: Successor of Dharmapala, under whom the Pala Empire reached its zenith.
- The Pala rulers were great **patrons of Buddhism** and contributed to the construction of several **Buddhist monasteries** and universities, including **Vikramashila** and **Odantapuri**.
- The **Pala period** is considered a golden era for **Buddhist art and culture**.

S25. Ans.(d)

Sol. The correct answer is (d) Devaprayag.

Explanation:

The **Bhagirathi** and **Alaknanda** rivers converge at **Devaprayag**, located in the **Tehri Garhwal district of Uttarakhand**. This confluence marks the **origin of the Ganga River**, one of the most sacred rivers in India.

- **Bhagirathi River** originates from the **Gangotri Glacier** and is considered the main source of the Ganga River.
- **Alaknanda River** originates from **Satopanth Glacier** near **Badrinath**.
- The **meeting point at Devaprayag** is of great religious and geographical significance, as from this confluence, the river is known as the **Ganga**.

Information Booster:

Panch Prayag (Five Confluences of Alaknanda River)

The **Alaknanda River** meets different tributaries at five sacred confluences, collectively called **Panch Prayag**:

1. **Vishnuprayag** – Confluence of **Alaknanda and Dhauliganga Rivers**.
2. **Nandaprayag** – Confluence of **Alaknanda and Nandakini Rivers**.
3. **Karnaprayag** – Confluence of **Alaknanda and Pindar Rivers**.
4. **Rudraprayag** – Confluence of **Alaknanda and Mandakini Rivers**.
5. **Devaprayag** – Confluence of **Alaknanda and Bhagirathi Rivers (forming the Ganga)**.

Devaprayag is considered the most important as it marks the **official beginning of the Ganga River**.

Additional Knowledge:

- Haridwar is a **major pilgrimage site** where the Ganga River enters the **plains of North India**,

S26. Ans.(c)

Sol. Ans. (c)

Explanation

World Wildlife Day, celebrated annually on March 3, is dedicated to raising awareness about the world's wild animals and plants. In 2025, the theme is "Wildlife Conservation Finance: Investing in People and Planet". This theme underscores the critical need for innovative financial solutions to support conservation projects, recognizing the indispensable role of wildlife in sustaining ecosystems, economies, and human well-being. It emphasizes global cooperation to raise funds, implement sustainable solutions, and support eco-friendly initiatives that protect species and their habitats.

Information Booster

•→World Wildlife Day was established by the United Nations General Assembly (UNGA) in 2013 to raise awareness about the world's wild fauna and flora.

•→The date, March 3, coincides with the adoption of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973.

•→CITES plays a crucial role in regulating international trade in wildlife species to ensure their survival.

•→The 2025 theme highlights the importance of mobilizing financial resources to support conservation initiatives.

•→Over a million species currently face the threat of extinction, emphasizing the urgency for conservation efforts.

•→Innovative financing mechanisms are essential to bridge the funding gap and promote sustainable practices benefiting both humanity and the natural world.

Additional Knowledge

•→(a) Partnerships for Wildlife Conservation: This theme emphasizes the importance of collaboration among governments, NGOs, local communities, and the private sector to effectively conserve wildlife. Such partnerships can lead to shared resources, knowledge, and strategies, enhancing conservation outcomes. Collaborative efforts often result in more comprehensive and sustainable conservation practices, addressing challenges like habitat loss and poaching through unified actions.

•→(b) Recovering Key Species for Ecosystem Restoration: Focusing on the revival of essential species plays a pivotal role in restoring ecological balance. Keystone species, when reintroduced or protected, can rejuvenate entire ecosystems. For instance, the reintroduction of wolves in Yellowstone National Park led to a cascade of positive environmental changes, showcasing the profound impact of species recovery on ecosystem health.

•→(d) Sustaining All Life on Earth: This theme highlights the interconnectedness of all life forms and the necessity of preserving biodiversity to maintain planetary health. Biodiversity ensures ecosystem resilience, providing services like pollination, water purification, and climate regulation. Protecting diverse species is crucial not only for their intrinsic value but also for the overall well-being of human societies that rely on healthy ecosystems.

S27. Ans.(b)

Sol. The correct answer is (b) Dayanand Saraswati.

•→Arya Samaj was founded by Swami Dayanand Saraswati on April 10, 1875, in Bombay (now Mumbai).

•→Swami Dayanand Saraswati was a Hindu reformer and a scholar who emphasized the return to the Vedas as the ultimate authority for knowledge and practice.

•→Arya Samaj promotes values such as education, gender equality, and social reforms including the eradication of caste-based discrimination and the promotion of widow remarriage.

•→The organization played a significant role in the socio-cultural and religious renaissance in India during the 19th and early 20th centuries.

Information Booster:

•→**Rabindranath Tagore:** A renowned poet, philosopher, and Nobel laureate in literature, best known for his literary works and contributions to Indian culture.

•→**Keshub Chandra Sen:** A prominent Indian social reformer and a leader of the Brahmo Samaj, which aimed at reforming and modernizing Hindu society.

•→**Swami Vivekananda**: A key figure in introducing Indian philosophies of Vedanta and Yoga to the Western world and a disciple of Ramakrishna Paramahamsa. He founded the Ramakrishna Mission.

S28. Ans.(d)

Sol. The Correct Answer Is: (D) **Nigeria**

Explanation:

Ngozi Okonjo-Iweala is an economist and the first woman and first African to serve as the Director-General of the World Trade Organization (WTO). She is from Nigeria and took office on March 1, 2021, with her tenure set to last until August 31, 2025. Okonjo-Iweala has previously served as Nigeria's Finance Minister and has had an extensive career at the World Bank.

Information Booster:

First African & First Woman: Ngozi Okonjo-Iweala became the first woman and the first African to lead the WTO in its history.
Tenure: Her tenure as WTO Director-General runs from March 1, 2021, to August 31, 2025.
Education: She holds a Ph.D. in Regional Economics and Development from the Massachusetts Institute of Technology (MIT).
Previous Roles: She has served as Nigeria's Finance Minister twice and was also a Managing Director at the World Bank.
Global Recognition: She has been recognized as one of the most powerful women in global finance and has worked on trade and development policies worldwide.
WTO's Role: The WTO focuses on global trade regulations, ensuring smooth trade relations between nations.

Additional Knowledge:

South Africa – South Africa is one of the most economically developed countries in Africa and plays an active role in international trade.
Algeria – Algeria is an important member of the African Union and has strong economic and trade connections.
Sudan – Sudan has a growing economy and engages in various international trade partnerships.

S29. Ans.(b)

Sol. The correct answer is (b) Haryana.

• **Rekha Gupta** is originally from **Haryana**, a state located in northern India.

• Haryana is known for its agricultural significance and its contribution to Indian sports, particularly in wrestling, hockey, and athletics.

• The state shares borders with Delhi, Uttar Pradesh, Punjab, Rajasthan, and Himachal Pradesh.

Additional knowledge:

• **Haryana** was carved out from Punjab on **1 November 1966**, following linguistic reorganization.

• The state capital of Haryana is **Chandigarh**, which also serves as the capital of Punjab.

History of Delhi's Chief Ministers:

Year	Chief Minister	Political Party	Notable Achievements
1952-1956	Chaudhary Brahm Prakash	Indian National Congress	First CM of Delhi after its establishment as a Union Territory.
1956-1967	Gulzari Lal Nanda	Indian National Congress	Held office twice, known for contributions to development.
1967-1968	Raj Narain	Socialist Party	First non-Congress CM, known for social reforms.
1968-1971	S. Ramaswamy	Indian National Congress	Focused on administrative improvements.
1971-1973	S. Ramaswamy	Indian National Congress	Second term as CM, worked on infrastructure projects.
1973-1977	President's Rule	-	Delhi was under President's Rule during this period.
1977-1980	Madan Lal Khurana	Janata Party	Oversaw development in Delhi's infrastructure.
1980-1984	Shanti Bhushan	Indian National Congress	Focused on strengthening administrative processes.
1984-1989	Rajiv Gandhi	Indian National Congress	Major focus on education and industrialization.
1989-1993	Sahib Singh Verma	Bharatiya Janata Party	Known for his work on Delhi's industrial growth.
1993-1998	Madan Lal Khurana	Bharatiya Janata Party	Focused on modernization of infrastructure.
1998-2003	Sheila Dikshit	Indian National Congress	Longest-serving CM of Delhi, major reforms in education, infrastructure, and transport.
2003-2013	Sheila Dikshit	Indian National Congress	Continued focus on city infrastructure, water supply, and education.
2013-2014	Arvind Kejriwal	Aam Aadmi Party	First term focused on anti-corruption reforms and public welfare.
2015-2020	Arvind Kejriwal	Aam Aadmi Party	Second term, introduced policies on education, healthcare, and water supply.
2020-2025	Arvind Kejriwal	Aam Aadmi Party	Continued focus on governance reforms and public services.
2025-Present	Rekha Gupta	Bharatiya Janata Party	Current CM, focusing on administrative reforms and development projects.

S30. Ans.(d)
Sol. Ans. (d) Gyanesh Kumar
Sol. The Central government appointed Gyanesh Kumar as the new Chief Election Commissioner (CEC) (26th) in February 2025, replacing Rajiv Kumar.
Information Booster
•→The Chief Election Commissioner and Other Election Commissioner Act, 2023 came into force in December 2023 and governs the appointment process for the Election Commission of India (ECI).
•→**Gyanesh Kumar previously served as Secretary in the Union Home Ministry**, where he played a **key role in implementing the abrogation of Article 370 in Jammu and Kashmir**.
The selection committee that appointed **Gyanesh Kumar as CEC** included:
•→**Prime Minister Narendra Modi (Chairperson)**
•→**Leader of the Opposition in Lok Sabha, Rahul Gandhi**
•→**Union Home Minister, Amit Shah (nominated by the PM)**

S31. Ans.(c)
Sol. Ans. (c) Radio and Climate Change
Explanation
World Radio Day 2025, observed on February 13, centers on the theme "Radio and Climate Change". This theme underscores radio's pivotal role in disseminating critical information about climate change, amplifying voices advocating for environmental sustainability, and encouraging eco-friendly practices. Radio serves as a powerful medium to educate the public on environmental issues and mobilize action towards combating climate change.
Information Booster
•→UNESCO proclaimed World Radio Day in 2011 to highlight radio's significance.
•→The day emphasizes radio's role in promoting access to information and freedom of expression.

•→Each year features a specific theme to address current global issues.
•→Radio remains one of the most accessible and trusted media worldwide.
•→The 2025 theme aligns with global efforts to address the climate crisis.

S32. Ans.(a)
Sol. The correct answer **is (a) Protecting Wetland for our Common Future.**
Solution:
•→World Wetlands Day is celebrated every year on 2 February.
•→Theme for 2025: **Protecting Wetland for our Common Future.**
•→This day marks the date of the adoption of the Ramsar Convention on Wetlands on 2 February 1971, in the Iranian city of Ramsar.
•→World Wetlands Day has been celebrated on 2 February since 1997.
Information Booster:
•→The Ramsar Convention is a global agreement aimed at conserving and sustainably managing wetlands. It acknowledges their essential ecological roles and highlights their economic, cultural, scientific, and recreational significance.
•→India has been a party to the Convention since 1982 and has so far declared 89 wetlands as Ramsar sites. (as of 31 January 2025)
•→Tamil Nadu has the maximum number of Ramsar sites (20) in India.
•→India has added four new Ramsar sites: **Sakkarakottai, Therthangal, Khecheopalri Wetland (Sikkim), and Udhwa Lake (Jharkhand), bringing India's total to 89.**
•→The latest additions were announced by the Union Minister of Environment, Forest and Climate Change on X on 1 February 2025.

S33. Ans.(a)
Sol. Gyanendra Pratap Singh took charge as the new Director General of the CRPF. He succeeded Sujoy Lal Thaosen and is known for his extensive experience in counter-insurgency operations.
Information Booster:
- The CRPF is the largest paramilitary force in India, established in 1939.
- Its primary responsibilities include maintaining law and order, counter-terrorism, and assisting states in emergency situations.

S34. Ans.(c)
Sol. The correct answer is (c) Samudragupta.
•→Samudragupta, one of the greatest rulers of the Gupta dynasty, is often referred to as the 'Napoleon of India' due to his extensive military conquests and strategic prowess.
•→He expanded the Gupta Empire significantly through numerous successful campaigns across India.
•→His reign marked a period of cultural and intellectual achievements, contributing to what is often regarded as the Golden Age of India.
Information Booster:
•→**Chandragupta:** Founder of the Maurya Empire, known for unifying most of India under his rule.
•→**Kumaragupta:** A later Gupta emperor, known for maintaining the prosperity and stability of the Gupta Empire.
•→**Skandagupta:** Another Gupta ruler, noted for defending the empire against the invasions of the Huns.

S35. Ans.(d)
Sol. The correct answer is **(D) 22 March.**
The theme of World Water day 2024 is **" Water for Peace".**
Information Booster:
- **26 August** is celebrated as Women's equality day/ Birth anniversary of Mother Teresa.
- **15 August** is celebrated as Independence day.
- **8 March** is celebrated as International Women's day.
- The theme for International Women's Day (IWD) in 2024 was **"Invest in women: Accelerateprogress"**

S36. Ans.(b)
Sol. Correct Answer: (B) **Take the Rights Path: My Health, My Right!**
Explanation:
The theme for World AIDS Day 2024 is **"Take the Rights Path: My Health, My Right!"**
- This theme emphasizes the importance of protecting human rights and health equity in the fight against HIV/AIDS.
- It calls on global leaders and citizens to champion the right to health by addressing inequalities that hinder progress in ending AIDS.

Other Options:

- **End Inequalities, End AIDS:** This was the theme for World AIDS Day 2021.
- **Equalize:** This was the theme for World AIDS Day 2022.
- **Together for a Better Tomorrow:** This is not a recognized theme for World AIDS Day.

The focus on human rights and health equity underscores the need for inclusive and non-discriminatory approaches to HIV prevention, treatment, and care.

S37. Ans.(b)

Sol. Ctrl + P is the shortcut for **printing the current document** or page in most applications like Word or Excel.

Important Key Points:

1. **Ctrl + P** opens the print dialog box.
2. **Ctrl + N** creates a new document.
3. **Ctrl + S** saves the document.
4. **Ctrl + V** pastes the copied content.
5. **Alt + Enter** opens the properties window in File Explorer.

Knowledge Booster:

•→**Ctrl + P**: A universally recognized shortcut for quickly printing files across various software applications.

S38. Ans.(a)

Sol. The correct answer is (a) Indus.

•→The Ravi, Chenab, and Jhelum are all major tributaries of the Indus River.

•→These rivers originate in the Himalayas and flow through the northern regions of the Indian subcontinent, contributing significantly to the Indus River system.

•→The Indus River is one of the longest rivers in the world and flows through China, India, and Pakistan, ultimately emptying into the Arabian Sea.

Information Booster:

Tungabhadra:

•→The Tungabhadra River is a major river in southern India, formed by the confluence of the Tunga and Bhadra rivers. It is a tributary of the Krishna River.

Kaveri:

•→The Kaveri River is one of the major rivers in southern India, flowing through the states of Karnataka and Tamil Nadu.

Krishna:

•→The Krishna River is another major river in southern India, flowing through the states of Maharashtra, Karnataka, and Andhra Pradesh.

S39. Ans.(b)

Sol. Kyiv was the capital of Ukraine.

• Volodymyr Zelenskyy President of Ukraine.

• The hryvnia or hryvnya has been the national currency of Ukraine.

Capital	Country
Prague	Czech Republic
Athens	Greece

S40. Ans.(c)
Sol. Sarojini Naidu was the first female to become the governor of an Indian state. She governed Uttar Pradesh from 15 August 1947 to 2 March 1949.

S41. Ans.(b)
Sol. Given:
Numbers are 132, 146, 218, 232, 321 and 223.
Formula used:
Average=Sum of valuesNumber of valuesAverage=Number of valuesSum of values
Solution:
Average=132+146+218+232+321+2236=>Average=12726Average=6132+146+218+232+321+223 =>Average=61272
=> Average = 212

S42. Ans.(c)
Sol. Given:
X : Y = 2 : 5
Y : Z = 3 : 2
Solution:
X : Y = 2x : 5x
Y : Z = 3x : 2x
Equating Y
X : Y : Z = 6x : 15x : 10x
Y : (X : Z)
15x : (6x + 10x)
15x : 16x
15 : 16

S43. Ans.(b)
Sol. Given:
• Compound Interest = Rs 4485
• Time = 2 years
• Rate = 30% per annum (compounded annually)
Formula Used:
• Compound Interest (CI) = Amount - Principal
• Amount =P×(1+R100)TP×(1+100R)T
Solution:
Let the principal be P.
Amount A =P×(1+30100)2=P×(1.3)2=P×1.69P×(1+10030)2=P×(1.3)2=P×1.69
Compound Interest = A - P = 1.69P - P = 0.69P
Given, 0.69P = 4485
P=44850.69=Rs6500P=0.694485=Rs 6500
The required sum (principal) is Rs 6500.

S44. Ans.(d)
Sol. Given:
Loss = 20%, Selling Price (SP_1) = CP – 20% of CP = 0.8 × CP
New SP_2 = SP_1 + 2000
Gain in SP_2 = 20% → SP_2 = 1.2 × CP
Solution:
SP2=SP1+2000SP2=SP1+2000
1.2 CP = 0.8 CP + 2000
1.2 CP – 0.8 CP = 2000
0.4 CP = 2000
CP =20000.4=50000.42000=5000
Alternate Method:
When 20% Loss = 100% - 20% = 80%
When 20% Profit = 100% + 20& = 120%
120% - 80% = 2000

40% = 2000
20% = 1000
100% = 5000

S45. Ans.(c)
Sol. Given:
Mahim bought a dozen eggs for Rs 50.
He sold them at a profit of 26%.
Formula Used:
Selling Price=Cost Price×(1+Profit Percentage100)Selling Price=Cost Price×(1+100Profit Percentage)
Solution:
Cost Price per egg =Total Cost Price of 12 eggs12=5012=4.17Rs12Total Cost Price of 12 eggs=1250=4.17Rs
Selling Price per egg =4.17×(1+26100)=4.17×1.26=5.25Rs4.17×(1+10026)=4.17×1.26=5.25Rs
Thus, the selling price of each egg is Rs 5.25.

S46. Ans.(a)
Sol. Given:
Ratio of Kishore to Pradeep = 5 : 11
Ratio of Pradeep to Sandeep = 6 : 14
Kishore has Rs. 570
Solution:
Kishore : Pradeep = 5 × 6 : 11 × 6 = 30 : 66
Pradeep : Sandeep = 6 × 11 : 14 × 11 = 66 : 154
So, Kishore : Pradeep : Sandeep = 30 : 66 : 154
Now, if 30 parts = Rs. 570
1 part = 570 ÷ 30 = Rs. 19
Sandeep's share = 154 × 19 = Rs. 2926
Alternate Method:

Kishore	Pradeep	Sandeep
5	11	**11**
6	6	14
30	**66**	**154**

Kishore : Pradeep : Sandeep = 30 : 66 : 154
Now, if 30 parts = Rs. 570
1 part = 570 ÷ 30 = Rs. 19
Sandeep's share = 154 × 19 = Rs. 2926

S47. Ans.(b)
Sol. Given:
Radius of the cone = 7 cm
Height of the cone = 12 cm
Formula Used:
Volume of a cone =1331× π ×r2r2 × h
Where, r = radius of the cone
h = Height of the cone
Solution:
Volume of the cone=13πr2h=>Volume of the cone=13×π×72×12=13×227×72×12=>Volume of the cone=616cm3Volume of the cone=31πr2h=>Volume of the cone=31×π×72×12=31×722×72×12=>Volume of the cone=616 cm3

S48. Ans.(d)
Sol. Given:
Speed of car = 45 km/h
Time taken = 50 sec
Formula Used:
(i) Speed=DistanceTime(ii)1km/hr=518m/s(i) Speed=TimeDistance(ii) 1 km/hr=185 m/s
Solution:
Speed=DistanceTimeSpeed=TimeDistance
=>45×51845×185 =Distance5050Distance
=> Distance = 625 m

S49. Ans.(a)
Sol. Given:
Length increased by 30%
Breadth increased by 25%
Formula Used:
Net % increase = a + b +ab100100ab
Solution:
Net increase in area = 30 + 25 +30×2510010030×25
= 55 + 7.5
= 62.5%

S50. Ans.(c)
Sol. Given:
3%ofx=4%of12+6%of803% of x=4% of 12+6% of 80
Solution:
3100x=4100×12+6100×803100x=48100+4801003100x=48+4801003100x=5281001003x=1004×12+1006×80 1003x=10048+100480 1003x=10048+480 1003x=100528
3x = 528
x = 176

S51. Ans.(d)
Sol. Given:
Find the Least Common Multiple (LCM) of the numbers: 336, 528, and 240.
Formula Used:
LCM (Least Common Multiple) of given numbers is the product of the highest powers of all prime factors involved.
Solution:
Prime factorization of each number:
$336 = 2^4 \times 3 \times 7$
$528 = 2^4 \times 3 \times 11$
$240 = 2^4 \times 3 \times 5$
Take the highest powers of all prime factors:
$LCM = 2^4 \times 3 \times 5 \times 7 \times 11 = 18480$

S52. Ans.(b)
Sol. Given:
Number of people = 8
Average increases by5225 kg
Replaced person's weight = 50 kg
Formula Used:
Total change in weight = Average change × Number of people
New weight = Replaced weight + Total change
Solution:
Total increase =52×825×8 = 20 kg
New person's weight = 50 + 20 = 70 kg

S53. Ans.(b)
Sol. Given:
We are asked to find the smallest possible number which when divided by 7, 9, and 11 leaves a remainder of 2 in each case.
Formula Used:
LCM (Least Common Multiple) is used to find the smallest number divisible by multiple numbers.
If a number leaves the same remainder 'r' when divided by a, b, c, then:
Required number = LCM(a, b, c) + r
Solution:
Since 7, 9, and 11 are co-prime (no common factors),
LCM = 7 × 9 × 11 = 693
Required number = 693 + 2 = 695

S54. Ans.(a)
Sol. Given:
Simple interest earned in 5 years at 10% per annum is 1000
Formula Used:
Simple Interest=Principal×Rate×Time100Simple Interest=100Principal×Rate×Time
Solution:
1000=Principal×10×5100Principal=20001000=100Principal×10×5Principal=2000

S55. Ans.(b)
Sol. Given:
A dealer sold5665 of his goods at 30% profit
The remaining1661was sold at the cost price
Formula Used:
Overall Gain %=(Total GainTotal Cost Price)×100Overall Gain %=(Total Cost PriceTotal Gain)×100
Solution:
Let the total cost price be ₹6
Cost of 5/6 goods = ₹5
Profit on ₹5 = 30% of 5 = ₹1.5
Selling price for 5/6 goods = ₹5 + ₹1.5 = ₹6.5
Cost of remaining 1/6 goods = ₹1
Sold at cost price → Selling price = ₹1
Total Cost Price = ₹6
Total Selling Price = ₹6.5 + ₹1 = ₹7.5
Total Gain = ₹7.5 − ₹6 = ₹1.5
Overall Gain % =1.5661.5× 100 = 25%

S56. Ans.(d)
Sol. Given:
We are to find when Compound Interest (CI) equals Simple Interest (SI), with interest compounded annually.
Formula Used:
Simple Interest (SI) =P×R×T100100P×R×T
Compound Interest (CI) =P(1+R100)T−PP(1+100R)T−P
Solution:
Let's compare CI and SI:
For T = 1 year,
CI =P(1+R100)1−P=P×R100P(1+100R)1−P=100P×R = SI
So, CI = SI when time = 1 year

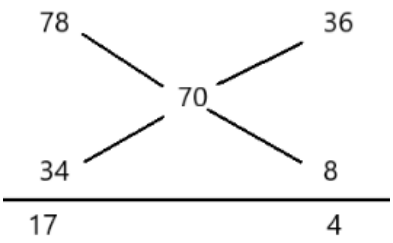
S57. Ans.(d)
Sol. Given:
40 - 3 × [10 + 6 × { 20 - 10 (6 - 5) × 2} ÷ 47]
Concept Used:
OperationpreferencewiseSymbolBrackets[],,()Orders,
of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders,
ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−
Solution:
40 - 3 × [10 + 6 × { 20 - 10 (6 - 5) × 2} ÷ 47
= 40 - 3 × [10 + 6 × { 20 - 10 × 2} ÷ 47]
= 40 - 3 × [10 + 6 × { 20 - 20} ÷ 47]
= 40 - 3 × [10 + 6 × 0 ÷ 47]
= 40 - 3 × [10 + 6 × 0]
= 40 - 3 × [10 +0]
= 40 - 3 × [10]
= 40 - 30
= 10

S58. Ans.(a)
Sol. Given:
33 tanA = 3sinA
To find:(23cosec⁡A×tan⁡A)(23cosecA×tanA)
Solution:
3tan⁡A=3sin⁡Asin⁡A=3tan⁡A3⟹cosec⁡A=33tan⁡A3tanA=3sinA sinA=33tanA ⟹cosecA=3tanA3
Now, putting this into the expression;
23cosec⁡A×tan⁡A=23×33tan⁡A×tan⁡A=623cosecA×tanA =23×3tanA3×tanA =6

S59. Ans.(c)
Sol. Given:
The ratio of the corresponding sides of two similar triangles is 9 : 1
Formula Used:
Ratio of Areas =(Length of corresponding sides of the first triangleLength of corresponding sides of the second triangle)2(Length of corresponding sides of the second triangleLength of corresponding sides of the first triangle)2
Solution:
Ratio of Areas =(91)2=9212=81:1(19)2=1292=81:1

S60. Ans.(d)
Sol. Given:
Proportion: 2.5 : 40.6 :: 40.6 : x
This is a continued proportion.
Concept Used:
In continued proportion a : b :: b : c,
then $b^2 = a \times c$
Solution:
2.5 : 40.6 :: 40.6 : x
x =(40.6)22.5=1648.362.52.5(40.6)2=2.51648.36 = 659.344

S61. Ans.(b)
Sol. Given:
Cost price of first type of sugar = Rs. 78/kg
Cost price of second type of sugar = Rs. 36/kg
Selling price of the mixture = Rs. 86.8/kg
Profit = 24%
Formula Used:
Cost Price of Mixture =Selling Price1+Profit1001+100ProfitSelling Price
Ratio =M−C1C2−MC2−MM−C1
whereC1C1 = cost of cheaper sugar,
C2C2 = cost of dearer sugar,
M = mean price or cost price of mixture.
Solution:
Cost Price of Mixture =86.81+241001+1002486.8
=86.81.24=70=1.2486.8=70
Now, apply the allegation rule:
Ratio =70−3678−70=34878−7070−36=834
The sugar should be mixed in the ratio 34 : 8
Alternate Solution:
Cost price of mixture = ₹70/kg
Allegation rule;



S62. Ans.(a)
Sol. Given:
41, 55, 45, 48, 40, 47, 41, 47, 54, 44, 49, 48, 53, 54, 50, 53, 41, 46
Concept Used:
The mode is the number that appears most frequently
Solution:
Frequency of each number
- 41 appears 3 times
- 55 appears 1 time
- 45 appears 1 time
- 48 appears 2 times
- 40 appears 1 time
- 47 appears 2 times
- 54 appears 2 times
- 44 appears 1 time
- 49 appears 1 time
- 53 appears 2 times
- 50 appears 1 time
- 46 appears 1 time

Identify the mode
The mode is the number that appears most frequently. From the frequency list, 41 appears the most, with a frequency of 3.
The mode of the data is 41.

S63. Ans.(d)
Sol. Solution:
Let the present ages of Gyanendra and Arbind be 6x and 5x respectively.
According to the given information, the sum of their ages is 55 years:
6x + 5x = 55
=> 11x = 55
=> x = 5
Thus, the present ages of Gyanendra and Arbind are:
Gyanendra's age = 6x = 6 * 5 = 30 years
Arbind's age = 5x = 5 * 5 = 25 years
Now, after 7 years, their ages will be:
Gyanendra's age after 7 years = 30 + 7 = 37 years
Arbind's age after 7 years = 25 + 7 = 32 years
The ratio of their ages after 7 years will be:
Ratio = 37 : 32

S64. Ans.(c)
Sol. Given:
Ram can complete the work in 16 days.
Ravi can complete the work in 20 days.
Reena can complete the work in 24 days.
Ravi leaves the work 5 days before completion.
Solution:
Total Work = LCM of 16, 20, and 24 is 240 unit
Ram's efficiency=24016=15Ravi's efficiency=24020=12Reena's efficiency=24024=10Ram's efficiency=16240=15 Ravi's efficiency=20240=12 Reena's efficiency=24240=10
Work done by Ravi in last 5 Days = 12×5=60unit×5=60unit
So, if this work also completed by Ravi.
Then Total Work = 240 + 60 = 300 unit
Time taken by three of them to complete the work =30037=8.10days≈8days37300=8.10days≈8days

S65. Ans.(c)
Sol. Given:
Train 1:
Leaves Hyderabad at 4:00 AM
Reaches Vijayawada at 8:00 AM
Travel time: 4 hours
Train 2:
Leaves Vijayawada at 6:00 AM
Reaches Hyderabad at 9:30 AM
Travel time: 3.5 hours (or7227 hours)
Concept Used:
Relative speed.
Distance = Speed × Time.
Total distance = LCM of 4 and 3.5 = 28
Solution:
Train 1 speed:28km4hours4 hours28 km = 7 km/h
Train 2 speed:28km3.5hours=3.5 hours28 km = 8 km/h
Train 2 starts at 6:00 AM, and Train 1 started at 4:00 AM.
Train 1 has traveled for 2 hours before Train 2 starts.
Distance traveled by Train 1 in 2 hours: 7 km/h × 2 hours = 14 km
Remaining distance: 28 km - 14 km = 14 km
Relative speed: 7 km/h + 8 km/h = 15 km/h
Time to cross=14151514 hours
14151514hours × 60 minutes/hour = 56 minutes
Train 2 started at 6:00 AM.
They will cross 56 minutes later.
Crossing time: 6:56 AM

S66. Ans.(b)
Sol. Given:
The ratio of the speeds of the boat while going upstream and downstream = 2 : 3
Sum of speeds = 15 km/h.
Solution:
Speed upstream = b - s km/h
Speed downstream = b + s km/h
The ratio of the speeds is given as
b−sb+s=23b+sb−s=32
(b - s) + (b + s) = 15
(b - s) + (b + s) = 15⟹2b=15⟹b=7.5⟹2b=15⟹b=7.5
7.5−s7.5+s=237.5+s7.5−s=32
3(7.5−s)=2(7.5+s)⟹22.5−3s=15+2s3(7.5−s)=2(7.5+s)⟹22.5−3s=15+2s
22.5−15=3s+2s⟹7.5=5s⟹s=1.5−15=3s+2s⟹7.5=5s⟹s=1.5
Speed of the stream is 1.5 km/h

S67. Ans.(b)
Sol. Given:
9992×100089992×10008
Formula Used:
$(a + b)(a - b) = a^2 - b^2$
Solution:
We can rewrite 9992 × 10008 as:
$(10000 - 8)(10000 + 8) = 10000^2 - 8 = 100000000 - 64 = 99999936$
Thus:
9992 × 10008 = 100000000 - 64 = 99999936

S68. Ans.(a)
Sol. Given:
Area of circle = 154m2m2
Formula Used:
Area of circle =πr2πr2
Circumference of circle =2πr2πr
Solution:
Area of circle =πr2πr2
154=πr2154=227×r2r=154×722r=7cm154=πr2154=722×r2r= 22154×7r=7cm
Circumference of the circle =2×227×72×722×7 = 44 cm

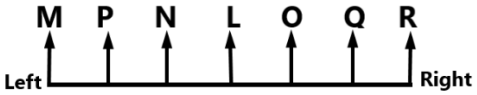
S69. Ans.(c)
Sol. Given:
x+1xx1=26
Solution:
x+1xx1=26
On squaring both side
x2x2 +1x2x21 +2 =262262
x2x2 +1x2x21 =676 -2
x2x2 +1x2x21 =674

S70. Ans.(c)
Sol. Given:
Height (h) = 56 cm
Curved surface area (CSA) = 1408 cm^2
Formula Used:
Curved Surface Area (CSA) of a cylinder = 2πrh
Solution:
Using the formula for CSA:
1408 = 2 × (22/7) × r × 56
1408 = (44/7) × r × 56
1408 = 44r × 8
1408 = 352r
r = 1408 / 352
r = 4 cm
Diameter (d) = 2r:
d = 2 × 4 = 8 cm
Converting cm to meters:
d = 8 cm = 8/100 m = 0.08 m
Answer: 0.08 m

S71. Ans.(d)
Sol. Statements:
(1) Some wood are chairs.
(2) All chairs are tables.
(3) No table is a bed.
According to the given statements, Venn diagram will be:

Conclusions:
(I): Some wood are table. (**True,** Since "All chairs are tables," and "Some wood are chairs," it follows that "Some wood are also tables")
(II): All chairs are beds. (**False,** Since No table is a bed then All chairs are beds is not possible.)
Thus, the correct option is **(d) Only conclusion (I) follows.**

S72. Ans.(d)
Sol. Given:
M is sitting at one of the ends of the line.
P is sitting to the immediate right of M.
N is sitting to the immediate right of P and the immediate left of L.
L is sitting to the immediate right of N.
Q is sitting to the immediate right of O and the immediate left of R.
All are facing north.
According to the given information, Seating arrangement will be:



As per the arrangements, P is sitting between M and N.
Thus, the correct option is **(d) P.**

S73. Ans.(a)
Sol. Given:
DFH, EHK, FJN, ?
Logic: 1st + 1 , 2nd + 2, 3rd + 3

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

First letter : D + 1 → E, E + 1 → F, F + 1 → G
Second letter : F + 2 → H, H + 2 → J, J + 2 → L
Third letter : H + 3 → K, K + 3 → N, N + 3 → Q
Therefore, the next term is **GLQ**.
Thus, correct option is (a).

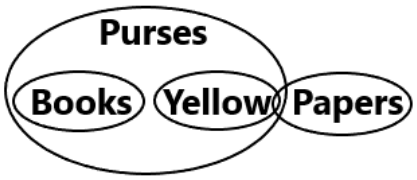
S74. Ans.(b)
Sol. Given:
Stop : Cease :: Start : ?
Logic: synonyms of the word.
"Stop" and "Cease" are synonyms, meaning the same thing.
In the same way, "Start" and "**Commence**" are synonyms, meaning the same thing.
Thus, correct option is (b).

S75. Ans.(d)
Sol. Given: 342, 215, 124, ?, 26, 7
Logic: Numbers are perfect cube of natural number in decreasing order from 7 then subtract 1.
7^3= 343, 343 - 1 = 342
6^3= 216, 216 - 1 = 215
5^3= 125, 125 - 1 = 124
4^3= 64, 64 - 1 = **63**
3^3= 27, 27 - 1 = 26
2^3= 8, 8 - 1 = 7
So, the missing term is **63**.
Thus, correct option is (d).

S76. Ans.(b)
Sol. Given:
51, 54, 59, ?, 75, 86
Logic: The pattern in the differences between the numbers is increasing by consecutive prime numbers:
51 + 3 = 54
54 + 5 = 59
59 + 7 = **66**

66 + 9 = 75
75 + 11 = 86
So, the missing number is **66**.
Thus, correct option is (b).

S77. Ans.(a)
Sol. Statements:
1. All books are purses.
2. All yellow are purses .
3. Some papers are yellow.
From the given statements possible Venn diagram will be.

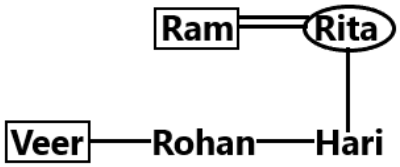


Conclusions:
I. Some bags are yellow. (**False**, there is no information about bags).
II. Some purses are papers. (**True**, all yellow are purses and some papers are yellow, so that means some purses are also yellow).
So, **Only conclusion II follows.**
Thus, correct option is (a).

S78. Ans.(a)
Sol. Given:
Veer is the brother of Rohan and Hari.
Rita is Hari's mother.
Ram is Rohan's father.

Symbol in Diagram	Meaning
- / O	Female
+ / □	Male
=	Married Couple
—	Siblings
|	Difference Of Generation

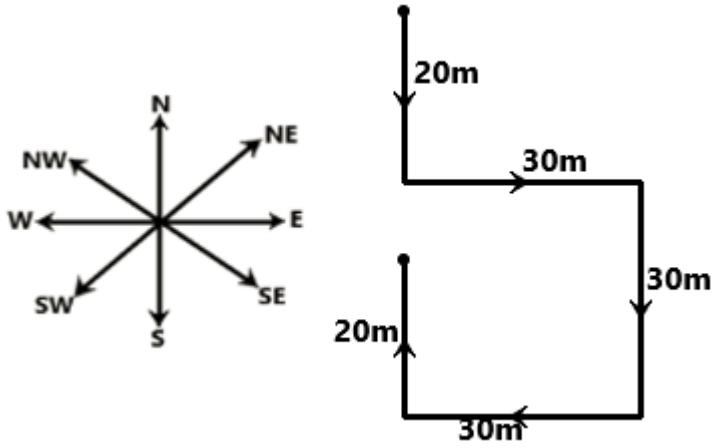
From the given information blood relation diagram will be.



Veer is **son** of Ram.
Thus, correct option is (a).

S79. Ans.(a)
Sol. Given:
Diksha walks 20 m towards the south, turns left and walks 30 m, after which, she turns right and walks 30 m.
Again, she turns right and walks 30 m, after which, she takes a final right turn and walks 20 m.

From the given information path diagram will be.



30 - 20 = 10m
20 + 10 = 30m
30 m far is she from the starting point.
Thus, correct option is (a).

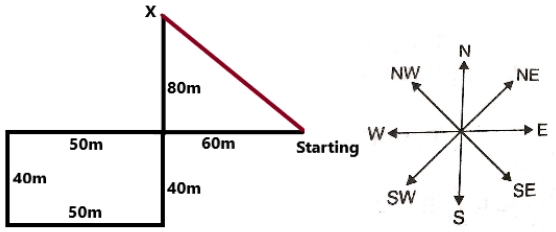
S80. Ans.(b)
Sol. Given:
203, 199, 208, 192, 217, 181, ?
Logic: Alternating signs and squares of consecutive natural numbers: 2^2, 3^2, 4^2, 5^2, 6^2, 7^2...)
203 – 4 = 199
199 + 9 = 208
208 – 16 = 192
192 + 25 = 217
217 – 36 = 181
Similarly,
181 + 49 = ? => 181 + 49 = **230**
Thus, the correct option is (b).

S81. Ans.(d)
Sol. Given:
Eight people (A, B, C, D, E, F, G, H) live on different floors of a building numbered from 1 to 8.
Only two people live between C and E.
Only two people live between E and D.
F lives on the topmost floor (floor 8).
G lives immediately above B.
A lives on one of the floors below E but above D and H.
D lives on the ground floor (floor 1).

Floor	Person
8	F
7	C
6	G
5	B
4	E
3	A
2	H
1	D

So **4** floors are there between the floors on which C and H live.
Thus, correct option is (d).

S82. Ans.(a)
Sol. Given:
Rohit is looking for his brother. He started from a point and went 110 m towards the west before turning to his left. Then he went 40 m, turned to his left and went 50 m to look for his brother at his uncle's place. His brother was not there. From there, he went 120 m to his north before meeting his brother at point X.



Distance=802+602Distance=6400+3600Distance=10000Distance=100mDistance=802+602 Distance=6400+3600 Distance=10000 Distance=100m
So, **100m** is the shortest distance between point X and the starting point of Rohit.
Thus, correct option is (a).

S83. Ans.(a)
Sol.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

a). ORVZ
O + 4 = S ≠ R
O + 3 → R
R + 4 = V
V + 4 = Z
Not all +4 — first step is +3
b). MQUY
M (13) + 4 = 17 → Q
Q (17) + 4 = 21 → U
U (21) + 4 = 25 → Y
All steps are +4
c). JNRV
J (10) + 4 = 14 → N
N (14) + 4 = 18 → R
R (18) + 4 = 22 → V
All steps are +4
d). TXBF
T (20) + 4 = 24 → X
X (24) + 4 = 28 → 28 − 26 = 2 → B
B (2) + 4 = 6 → F
All steps are +4
So, Only Option A (ORVZ) does not follow the +4 each letter pattern.
Thus, correct option is (a).

S84. Ans.(d)
Sol. Given Series: 4, 9, 25, 49, 121, _____
Let's analyze the pattern of the series:
$4 = 2^2$

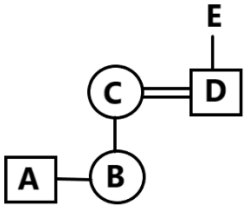
$9 = 3^2$
$25 = 5^2$
$49 = 7^2$
$121 = 11^2$
logic = The numbers are squares of consecutive prime numbers:
2, 3, 5, 7, 11, ...
The next prime number after 11 is 13, so the next term will be:
$13^2 = 169$
Final Answer: 169
Final Correct Option: (D) 169

S85. Ans.(d)
Sol. Given:
' P + Q ' means ' P is the brother of Q ',

Relations	Brother	Daughter	Wife	Son
Sign	+	-	×	÷

Symbol in Diagram	Meaning
- / O	Female
+ / □	Male
=	Married Couple
—	Siblings
|	Difference Of Generation

A + B - C × D ÷ E
From the given information Family tree will be:

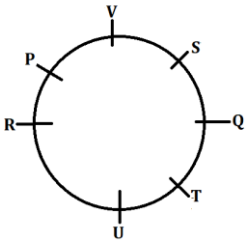


So, **A is the grandson (son's son)** of E.
Thus, the correct option is: **(d)**

S86. Ans.(a)
Sol. Given:

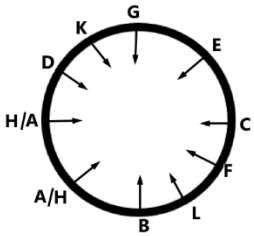
- Seven friends P, Q, R, S, T, U and V are sitting around a circular table facing the centre.
- R is next to the left of U and V is second to the left of R.
- P is sitting third to the left of T.
- Q is between S and T.

According to the given information circular seating arrangement will be-



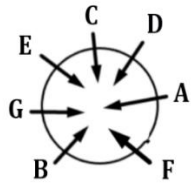
U, is Fourth to the right of S.
Thus, the correct answer is (a).

S87. Ans.(d)
Sol. Given:
Ten boys named A, B, C, D, E, F, G, H, K and L are sitting around a circular table facing the centre.
L is fourth to the right of D.
E is second to the left of K.
G is second to the left of D.
F is third to the left of G.
L is to the immediate right of B.
E is third to the right of L.
H and A are immediate neighbours.
From the given information seating arrangement will be;



K is sitting third to the right of C.
Thus, correct option is (d).

S88. Ans.(b)
Sol. Given:
A, B, C, D, E, F and G are sitting around a circular table facing the centre (but not necessarily in the same order).
G sits to the immediate left of B.
A sits to the immediate left of D.
D sits second to the left of E.
C sits third to the left of B.
From the given information arrangement will be:



So, there are **2** people sit between B and D when counted from the left of D.
Thus, the correct option is: **(b)**

S89. Ans.(c)
Sol. Given- BABE is coded as YZYV
Logic:
Each letter is replaced with its opposite letter in the English alphabet (A↔Z, B↔Y, C↔X, D↔W, E↔V, ...).
Step-by-Step Conversion:
A → Z
C → X
I → R
D → W

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

So, ACID → ZXRW

B	A	B	E	
|	|	|	|	Opp.
Y	Z	Y	V	

Similarly,

A	*C*	*I*	*D*
|	|	|	|
Z	*X*	*R*	*W*

Final Answer:
Option (C) ZXRW

S90. Ans.(a)
Sol. Given Series:
F, G, J, K, N, ?

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: alternates between adding **1** and **3**.
F + 1 → G
G + 3 → J
J + 1 → K
K + 3 → N
Similarly,
N + 1 → **O**
Thus, correct option is (a).

S91. Ans.(b)
Sol. Given: 1125 × 45 ÷ 39 – 17 + 19 = ?
With operator interchanges:
'+' and '–' are interchanged
'×' and '÷' are interchanged
So the new equation becomes:
1125 ÷ 45 × 39 + 17 – 19
Solve step-by-step using BODMAS:
1125 ÷ 45 = 25
25 × 39 = 975
975 + 17 = 992
992 – 19 = 973
Final result: 973
Final Answer:
The correct result is 973
Final Correct Option: (B) 973

S92. Ans.(a)
Sol. Expression:
32 ÷ 14 + 16 – 8 × 4
With operations redefined as:
'+' means '–'
'–' means '×'
'×' means '÷'

'÷' means '+'
Becomes:
32 + 14 – 16 × 8 ÷ 4
Now apply BODMAS:
First: 8 ÷ 4 = 2
Then: 16 × 2 = 32
32 + 14 - 32
That result is 14
Option A is correct.

S93. Ans.(b)
Sol. Given Expression:
38 ÷ 21 + 436 × 4 – 73
With operator interchanges:
'+' becomes '–'
'–' becomes '+'
'×' becomes '÷'
'÷' becomes '×'
Apply substitution:
So the new expression becomes:
38 × 21 – 436 ÷ 4 + 73
Apply BODMAS (solve in correct order)
Expression:
38 × 21 – 436 ÷ 4 + 73
Step-by-step:
38 × 21 = 798
436 ÷ 4 = 109
Now apply the operations:
798 – 109 = 689
689 + 73 = 762
762 is answer.

S94. Ans.(a)
Sol. Given:
Seven boxes A, B, C, D, E, F and G are kept one over the other but not necessarily in the same order.
B is kept second from the bottom.
Only three boxes are kept between B and G.
F is kept at one of the positions below B.
Only E is kept between G and D.
A is kept at one of the positions above G.
From the given information arrangement will be.

Order	Boxes
7	A
6	G
5	E
4	D
3	C
2	B
1	F

1 boxes are kept between A and E.
Thus, correct option is (a).

S95. Ans.(d)
Sol. Given:
1. Nucleus
2. Molecule
3. Atom
4. Proton

5. Compound
Logic: Arrange them from **smallest** to **largest** (logical order based on structure).
4. Proton → a part of the nucleus.
1. Nucleus → made up of protons and neutrons.
3. Atom → contains a nucleus and electrons.
2. Molecule → group of atoms bonded together.
5. Compound → group of molecules of different elements combined.
Thus, the correct sequence is:
4 (Proton) → 1 (Nucleus) → 3 (Atom) → 2 (Molecule) → 5 (Compound)
Thus, the correct option is: **(d)**

S96. Ans.(c)
Sol.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: 1st letter + 10 = 3rd letter and 2nd letter + 9 = 4th letter
Now, we check each options.
Option (a): HT - RC **(Follow)**
H + 10 = R, T + 9 = C
Option (b): QC - AL **(Follow)**
Q + 10 = A, C + 9 = L
Option (c): JO - LS **(Not Follow)**
J + 10≠= L, O + 9≠= S
Option (d): CO - MX **(Follow)**
C + 10 = M, O + 9 = X
Thus, correct option is (c).

S97. Ans.(a)
Sol. Now, we check each options.
Option (a): Diamond – A gemstone, usually a single item.
Option (b): Bangle – A circular ornament, typically worn on the wrist.
Option (c): Ring – A circular ornament, worn on fingers.
Option (d): Necklace – A jewelry item, worn around the neck.
Bangle, **Ring** and **Necklace** are all types of jewelry used as wearable ornaments.
Diamond is a material or gemstone that can be used in jewelry, but it is **not** a jewelry type itself.
Thus, correct option is (a).

S98. Ans.(a)
Sol.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: For each letter in the word, shift forward by 5 positions in the alphabet.
EAR → JFW
E (5) + 5 = 10 → J
A (1) + 5 = 6 → F
R (18) + 5 = 23 → W

So EAR → JFW
CUP → HZU
C (3) + 5 = 8 → H
U (21) + 5 = 26 → Z
P (16) + 5 = 21 → U
So CUP → HZU
Now code LIGHT using the same +5 logic
L (12) + 5 = 17 → Q
I (9) + 5 = 14 → N
G (7) + 5 = 12 → L
H (8) + 5 = 13 → M
T (20) + 5 = 25 → Y
So, LIGHT → QNLMY
Correct Answer: (A) **QNLMY**

S99. Ans.(b)
Sol. Given: 1st January is Friday.
First day of March = ?
Days in January and February (Leap Year)
January has 31 days → 31 days = 4 weeks + 3 extra days
So, 1st February will be Friday + 3 days = Monday.
February has 29 days (since it's a leap year) → 29 days = 4 weeks + 1 extra day
So, 1st March will be Monday + 1 day = **Tuesday**
Thus, correct option is (b).

S100. Ans.(d)
Sol. Given:
26 September 2005 was a Monday.
26 September 2017 = ?
Total no of odd day between 26 September 2005 to 26 September 2017 = 12 + 3 = 15 ÷ 7 = 2 and remainder 1 (Total 17 year and 4 leap year i.e. 2008, 2012, 2016).
So, 26 September 20017 will be Monday + 1 = Tuesday.
Thus, the correct option is**: (d) Tuesday**