RRB NTPC UG Memory Based Mock (11 Aug Exam)

Q1. The Valley of Flowers lies in which unique transition zone between major Himalayan mountain ranges?
(a) Pir Panjal and Dhauladhar Ranges
(b) Shivalik and Zanskar Ranges
(c) Zanskar and Great Himalayas
(d) Karakoram and Ladakh Ranges

Q2. Which astronaut from India is part of the Axiom Mission 4 and has been selected for India's first human space mission, Gaganyaan?
(a) Mangalyaan
(b) Shubhanshu Shukla
(c) Rakesh Sharma
(d) Sunita Williams

Q3. Free legal aid is part of which part of the Indian Constitution?
(a) Preamble
(b) Directive Principles
(c) Fundamental Rights
(d) Fundamental Duties

Q4. On which date will the 648th birth anniversary of Sant Kabirdas be observed in 2025?
(a) June 10, 2025
(b) June 11, 2025
(c) June 12, 2025
(d) June 13, 2025

Q5. Which category did Arijit Singh receive the Padma Shri Award in?
(a) Arts
(b) Literature
(c) Music
(d) Social Work

Q6. Where is the Tata Institute of Fundamental Research situated?
(a) Mumbai
(b) Calcutta
(c) Bengaluru
(d) Chennai

Q7. What is the theme of United Nations Public Service Day 2025?
(a) Empowering Public Service for a Better Future
(b) Public Service for the Sustainable Development Goals
(c) Five Years to 2030: Accelerating Public Service Delivery for a Sustainable Future
(d) Innovation in Public Administration

Q8. Which state introduced a geo-tagged unique ID system for all infrastructure projects to improve transparency and monitoring?
(a) Maharashtra
(b) Gujarat
(c) Karnataka
(d) Tamil Nadu

Q9. LAN stands for
(a) Local Area Network
(b) Large Area Network
(c) Land Area Network
(d) Line Access Network

Q10. What does Article 65 of the Indian Constitution deal with?
(a) Powers of the President
(b) Powers of the Prime Minister
(c) Vacancy in the office of the President and the Acting President
(d) Election of the President

Q11. The first volume of Akbarnama dealt with the history of _____?
(a) the events of Akbar's reign
(b) Akbar's ancestors
(c) Akbar's army and revenues
(d) Akbar's administration

Q12. How many nuclear reactors will Russia build in Iran according to the latest agreement?
(a) Four
(b) Six
(c) Eight
(d) Ten

Q13. Tanjore Balasaraswati was a dancer of which of the following dance forms?
(a) Mohiniyattam
(b) Kuchipudi
(c) Kathak
(d) Bharatanatyam

Q14. Which of the following sports events were included in the school-level competitions organised by the Uttar Pradesh government in December 2024?
(a) Cricket and badminton
(b) Tennis and swimming
(c) Kabaddi and kho-kho
(d) Basketball and athletics

Q15. What is the minimum age required for a person to be elected to the legislative assembly?
(a) 21 years
(b) 25 years
(c) 22 years
(d) 18 years

Q16. Which State to Host Khelo India Youth Games and Para Games in 2025?
(a) Uttar Pradesh
(b) Uttarakhand
(c) Rajasthan
(d) Bihar

Q17. Which Sultan of the Khilji Dynasty is known for his market control policy?
(a) Jalaluddin Khilji
(b) Alauddin Khilji
(c) Mubarak Khilji
(d) Qutbuddin Khilji

Q18. Which of the following states of India does not share any boundary with Nepal?
(a) Tripura
(b) Uttarakhand
(c) Uttar Pradesh
(d) Bihar

Q19. Which Indian state became the first to establish a Senior Citizens Commission in March 2025?
(a) Kerala
(b) Gujarat
(c) Maharashtra
(d) Tamil Nadu

Q20. Which of the following is the default operating system of Microsoft devices ?
(a) Chrome 05
(b) Linux
(c) Windows
(d) iOS

Q21. Where is India's first e-waste recycling park being established?
(a) Mumbai
(b) Bangalore
(c) Holambi Kalan, Delhi
(d) Chennai

Q22. The Indian Councils Act of 1909 is also known as _____.
(a) Montagu-Chelmsford Reforms
(b) Ilbert Bill
(c) Morley-Minto Reforms
(d) Pitt's India Act

Q23. Kosi is a tributary of which river?
(a) Yamuna
(b) Brahmaputra
(c) Mahanadi
(d) Ganga

Q24. Nitrogenase is an enzyme associated with:
(a) Nitrogen oxidation
(b) Nitrate reduction
(c) Nitrogen fixation
(d) Nitrogen absorption

Q25. Which country ranks first in the world with the highest average IQ in 2025?
(a) Taiwan
(b) Japan
(c) Singapore
(d) China

Q26. The depiction of Vishnu as Narasimha (the man-lion) in the wall relief of Cave 15 at Ellora belongs to which historical period?
(a) Gurjara Pratihara period
(b) Rashtrakuta period
(c) Chalukya period
(d) Gupta period

Q27. The power to rule in India was transferred from the British East India Company to the British Parliament in which of the following years?
(a) 1858 AD
(b) 1861 AD
(c) 1857 AD
(d) 1860 AD

Q28. What is the name of the civil defence mock drill conducted in Bengaluru to enhance emergency preparedness and public awareness?
(a) Operation Shield
(b) Operation Abhyas
(c) Operation Safeguard
(d) Operation Vigilant

Q29. Mirza Wajid Ali Shah was the king of which of the following regions during the Indian Rebellion of 1857?
(a) Awadh
(b) Meerut
(c) Kanpur
(d) Satara

Q30. Which of the following is not a valid version of Internet Protocol (IP)?
(a) IPV4
(b) IPV6
(c) IPV11
(d) None of these

Q31. What was the role of the 'Rajanya' in society during the Vedic period?
(a) Kings and warriors
(b) Merchants and traders
(c) Farmers and labourers
(d) Priests and scholars

Q32. Nagar Haveli lies on the border of which two states of India?
(a) Karnataka and Gujarat
(b) Gujarat and Maharashtra
(c) Maharashtra and Andhra Pradesh
(d) Maharashtra and Karnataka

Q33. Which scheme completed 9 years in June 2025?
(a) Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)
(b) Pradhan Mantri Jan Dhan Yojana
(c) Ayushman Bharat
(d) Beti Bachao Beti Padhao

Q34. Which part of the Indian Constitution deals with the Center–State Relations?
(a) Part IX
(b) Part VI
(c) Part XI
(d) Part IV

Q35. The Third Schedule of the Indian Constitution contains which of the following?
(a) The Forms of Oaths or Affirmations
(b) The State list
(c) The recognized languages
(d) The Union list

Q36. Which type of rainfall is caused when moist air is compelled to ascend over a natural barrier such as a mountain range?
(a) Convectional rainfall
(b) Cyclonic rainfall
(c) Orographic rainfall
(d) Monsoonal rainfall

Q37. The climate of India in mainly tropical because …….-
(a) The location of the Himalayas in the north
(b) Major part of India lies within the tropics
(c) The overpowering influence of India Ocean
(d) None of the above

Q38. To delete whole words at a time, which keys should be used in MS-Word?
(a) Ctrl + Backspace
(b) Ctrl + Delete
(c) Alt + Ctrl + Delete
(d) Both (a) or (b)

Q39. According to the Constitution of India, the minimum age requirement for being a member of a Panchayat is:
(a) 18 years
(b) 28 years
(c) 24 years
(d) 21 years

Q40. Which fintech company launched India's first UPI-powered bank branch in Bengaluru?
(a) Paytm
(b) PhonePe
(c) Slice
(d) Razorpay

Q41. How much amount will be received on a principal of Rs. 13500 at the rate of 20 percent per annum compound interest (compounded annually) for 2 years?
(a) Rs. 19440
(b) Rs. 18420
(c) Rs. 19720
(d) Rs. 20220

Q42. If 4% of x = 24, then x is equal to:
(a) 1300
(b) 700
(c) 600
(d) 1200

Q43. A cistern can be filled with water by a pipe in 10 hours, and it can be emptied by a second pipe in 8 hours. If both the pipes are opened when the cistern is full, the time in which it will be emptied is:
(a) 45 hours
(b) 42 hours
(c) 44 hours
(d) 40 hours

Q44. Simplify: $\{11 \times (5 \times (2^2))\} \div 8 + 19 - 84$
(a) −30588−305
(b) −30088−300
(c) −29188−291
(d) −30888−308

Q45. If a +1aa1 = 7, then a22 +1a2a21 = ?
(a) 48
(b) 44
(c) 47
(d) 46

Q46. A 280 m long train overtakes a man moving at a speed of 5 km/h (in same direction) in 42 seconds. How much time (in seconds) will it take this train to completely cross another 500 m long train, moving in the opposite direction at a speed of 43 km/h?
(a) 52
(b) 34
(c) 39
(d) 38

Q47. A rectangular field 50 meters long and 42 meters broad contains a rectangular lawn inside it surrounded by a gravel path of uniform width. If the width of the path is 6 m , then the area of the path is _____.
(a) 480m2m2
(b) 720m2m2
(c) 240m2m2
(d) 960m2m2

Q48. If 50 is subtracted from 60% of a number, then the result is 40. 60% of the same number is:
(a) 120
(b) 90
(c) 60
(d) 150

Q49. There are two sections A and B of a class, consisting of 36 and 44 students, respectively. If the average weight of students of section A is 40 kg and that of section B is 35 kg, find the average weight of the whole class.
(a) 36.75 kg
(b) 37.75 kg
(c) 36.25 kg
(d) 37.25 kg

Q50. The median of the observations 87, 56, 27, 31, 13, 39, 18, 80, 98, 92 and 25 is:
(a) 25
(b) 56
(c) 39
(d) 31

Q51. ₹ 2,000 is divided between A and B such that half of A's part and one-third of B's part are equal. What is B's part (in ₹)?
(a) 1,000
(b) 600
(c) 800
(d) 1,200

Q52. The average of 9 numbers is 17. The average of 7 of these numbers is 16. The average of the remaining two numbers is:
(a) 19.5
(b) 20.5
(c) 21.5
(d) 22.5

Q53. The ratio of the lengths of two corresponding sides of two similar triangles is 3 : 10. The ratio of the areas of these two triangles, in the order mentioned, is:
(a) 9 : 100
(b) 10 : 101
(c) $3\sqrt{3} : 10$
(d) 3 : 10

Q54. The difference between simple and compound interests, compounded annually, on acertain sum of money for 2 years at 5% per annum is ₹1,600. Find the sum (in ₹).
(a) 64,000
(b) 3,20,000
(c) 32,000
(d) 6,40,000

Q55. Y has to score 40% marks to pass in an exam. He gets 20 marks and fails by 40 marks. The maximum marks of the exam
(a) 250
(b) 100
(c) 150
(d) 200

Q56. A man sold his watch at a loss of 5%. Had he sold it for ₹56.40 more, he would havegained 10%. What is the cost price (in ₹) of the watch?
(a) ₹375
(b) ₹377
(c) ₹376
(d) ₹378

Q57. Two concentric circles have radii of 10 cm and 26 cm. Find the length of the chord of the larger circle that is tangent to the smaller circle.
(a) 20 cm
(b) 48 cm
(c) 50 cm
(d) 52 cm

Q58. Find the area of a sector with a central angle of 150° in a circle with a radius of 12 cm.
(a) 55πcm255πcm2
(b) 72πcm272πcm2
(c) 45πcm245πcm2
(d) 60πcm260πcm2

Q59. There are two partners in the business, Ritu and Monika. Ritu invests Rs. 55,000 for 7 months and Monika invests Rs. 42,000 for 11 months. Out of a profit of Rs. 41,690, what is the share of Ritu?
(a) Rs. 17,890
(b) Rs. 18,793
(c) Rs. 17,235
(d) Rs. 18,950

Q60. A, B, C alone can do a piece of work in 9,12 and 18 days, respectively. They all started the work together, but A left after 3 days. In how many days was the remaining work completed?
(a) 114411
(b) 22
(c) 9559
(d) 5225

Q61. If $1 + \sqrt{3}$ and $1 - \sqrt{3}$ are the roots of a quadratic equation. then the quadratic equation is:
(a) $x^2 - 2x + 3 = 0$
(b) $x^2 - 2x - 3 = 0$
(c) $x^2 - 2x - 2 = 0$
(d) $x^2 - 2x + 2 = 0$

Q62. A man takes 13 hours to swim 91 km downstream. He swims 39 km upstream in the same time. What is the speed (in km/hr) of the boat in still water?
(a) 5
(b) 8
(c) 1
(d) 9

Q63. The sum of the two numbers is 58 and one of them exceeds the other by 18 . Find the greater number.
(a) 30
(b) 36
(c) 40
(d) 38

Q64. A can do a piece of work in 57 hours, B and C together can do it in 28 hours, while A and C together can do it in 19 hours. How long (in hours) will B alone take to do it?
(a) 1597
(b) 1595
(c) 1596
(d) 1598

Q65. Find the value of (9K − 5) for which the number 35K84 is divisible by 11.
(a) 24
(b) 49
(c) 51
(d) 37

Q66. Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Keshav borrowed an amount of ₹380000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Keshav after 4 years.
(a) 38000
(b) 37500
(c) 39000
(d) 39500

Q67. What is the average speed of a van which covers half the distance with a speed of 48km/h and the other half with a speed of 24 km/h?
(a) 40 km/h
(b) 38 km/h
(c) 32 km/h
(d) 33 km/h

Q68. The diameter of a metallic solid sphere is 42 cm. It is melted and drawn into a wire with a cross-sectional diameter of 0.6 cm. Find the length (in metre) of the wire.
(a) 1372
(b) 1367
(c) 1362
(d) 1364

Q69. A dealer purchased an oven for ₹605. After allowing a discount of 45% on its marked price, he still gains 37%. Find the marked price of the oven.
(a) ₹1,421
(b) ₹1,502
(c) ₹1,537
(d) ₹1,507

Q70. If $\text{cosec}2\theta = \sec(\theta - 30)^\circ$, then find the measure of θ (in degrees).
(a) 40
(b) 25
(c) 45
(d) 35

Q71. Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)
(a) BURM
(b) QJGB
(c) HAXS
(d) TMJF

Q72. P, Q, R, S, T went on a picnic. 'P' is the son of 'Q'. But 'Q' is not the father of 'P'. 'R' is the son of 'S', who is the brother of 'P'. 'T' is the wife of 'S'.How is 'P' related to 'R'?
(a) Uncle
(b) Father
(c) Nephew
(d) Brother

Q73. Read the given statements and conclusions carefully. Assuming that the informationgiven in the statements is true, even if it appears to be at variance with commonlyknown facts, decide which of the given conclusion(s) logically follow(s) from thestatements.
Statements:
1. Some goats are hens.
2. All hens are cows.
3. All cows are tigers.
Conclusions:
I. All cows are goats.
II. Some tigers are hens.
(a) Both conclusions I and II follows.
(b) Only conclusion I follows.
(c) Only conclusion II follows.
(d) Neither conclusion I nor II follows.

Q74. In a certain code language, if I is written as P, P as A, A as O, O as N, N as C, C as T and T as I, then how will CAPTION be written in that code language?
(a) ATOINPC
(b) TOIAACN
(c) CTOAIPN
(d) TOAIPNC

Q75. Seven friends, F, G, H, I, O, P and Q, are sitting in a row facing north. Only two people sit between I and G. Only H sits to the right of F. Only one person sits between G and F. O sits at some place to the right of P but at some place to the left of Q. Who sits third from the right end of the line?
(a) F
(b) G
(c) H
(d) Q

Q76. Find the missing term in the following letter series:
GIK, MOQ, SUW, ?, EGI,
(a) YZB
(b) ZBD
(c) YAC

(d) XZB

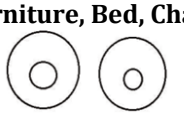
Q77. If the 10th day of a month is a Saturday, what day will the 27th of the same month be?
(a) Saturday
(b) Tuesday
(c) Monday
(d) None of the above

Q78. IJF is related to PQM in a certain way based on the English alphabetical order. In the same way, RSO is related to YZV. To which of the following is EFB related, following the same logic?
(a) MNJ
(b) MNK
(c) LMI
(d) LMJ

Q79. Read the given statement and the arguments carefully and select the appropriate answer from the given options.
Statement:
Fake news has become a problem of the 21st century over the globe.
Arguments:
I. A global level mechanism is needed to combat this worldwide problem.
II. Problems related to fake news are only present in India.
(a) Both I and II weaken the statement.
(b) I weakens while II strengthens the statement.
(c) II weakens while I strengthens the statement.
(d) Both I and II strengthen the statement.

Q80. A, B, C, D, E and F live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on, till the topmost floor is numbered 6. B lives on an odd numbered floor but not 3. The sum of floors on which B and D live is 7. E lives immediately below F. C lives on the top floor. How many people live above E?
(a) 2
(b) 4
(c) 3
(d) 1

Q81. Complete the following series.
Z1, Y4, X9, ____
(a) W25
(b) D16
(c) D25
(d) W16

Q82. Select the Venn diagram that best represents the relationship between the following.
Furniture, Bed, Chair, Dining table
(a) 
(b) 
(c) 
(d) 

Q83. Input: "Ocean Earth Below Stars Surface Dream"
Step 1: Surface Ocean Earth Below Stars Dream
Step 2: Surface Earth Ocean Below Stars Dream
Step 3: Surface Earth Dream Ocean Below Stars
Step 4: Surface Earth Dream Ocean Stars Below
Step 4 is the last step.
For the input, "Sky Up Gas High Down Die", what is Step 2?
Read the following information carefully and answer the question that follows:
A word-number arrangement machine, when given input as a set of words and numbers, rearranges them following a particular rule and generates a stepwise output until the rearrangement is complete. Following is an illustration of the input and steps of rearrangement:
(a) Die High Down Up Gas Sky
(b) Die High Down Up Sky Gas
(c) Die High Sky Up Gas Down
(d) Die High Down Sky Up Gas

Q84. Shyam walked 10 m towards the north and then turned left and walked 11 m. He then turned right and walked for 13 m, turned right again and walked for 10 m. He then turned left and walked 14 m, and then finally turned right and walked 1 m. How far is Shyam from the starting point?
(All turns are 90 degree turns only)
(a) 34 m
(b) 33 m
(c) 35 m
(d) 37 m

Q85. What will come in the place of the question mark (?) in the following equation, if '+' and '–' are interchanged and '×' and '÷' are interchanged?
2 ÷ 70 × 2 – 30 + 30 = ?
(a) 69
(b) 68
(c) 70
(d) 66

Q86. A, B, C, D, E and F are of different heights. Only A is shorter than B. Only two people are taller than E. D is taller than F but shorter than C. Who is the second shortest person among them?
(a) B
(b) F
(c) A
(d) C

Q87. Select the missing pair (third letter cluster : fourth letter cluster) that is related in the same way as the first letter cluster is related to the second letter cluster and the fifth letter cluster is related to the sixth letter cluster.
GH : DK :: ? :: QR : NU
(a) SV:PX
(b) KL:MO
(c) FI:DK
(d) XZ:UC

Q88. In a certain code language, 'find the key' is coded as 'ak jo bk' and 'the train left' is coded as 'tu mt jo'. How is 'the' coded in the given language?
(a) tu
(b) jo
(c) mt
(d) ak

Q89. In the following question, select the related word from the given alternatives.
Pigeon : Peace :: White flag : ?
(a) Head
(b) Surrender
(c) Victory
(d) Liberty

Q90. In three of the following four number pairs, the numbers are related in the same way and thus form a group. Which number pair DOES NOT belong to that group?
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
(a) 4 : 64
(b) 8 : 512
(c) 6 : 212
(d) 10 :1000

Q91. What will come in the place of '?' in the following equation, if '+' and '–' are interchanged and '×' and '÷' are interchanged?
41 ÷ 19 + 448 × 4 – 26 = ?
(a) 696
(b) 691
(c) 699
(d) 693

Q92. P, Q, R, S, T, U and V are sitting around a circular table facing the centre. Only two people sit between T and S when counted from the right of T. Only three people sit between V and Q when counted from the right of Q. S sits to the immediate right of Q. U sits to the immediate right of R. How many people sit between Q and U when counted from the right of Q?
(a) 1
(b) 3
(c) 4
(d) 2

Q93. Prince ranked 24th from the top and 39th from the bottom in his class. How many students are there in his class?
(a) 61
(b) 62
(c) 64
(d) 63

Q94. Which of the following responses would be a meaningful order of the following words?
1. Village 2. Nation 3. District
4. Taluk 5. State
(a) 1, 4, 2, 3, 5
(b) 1, 3, 2, 4, 5
(c) 1, 4, 3, 5, 2
(d) 1, 2, 3, 4, 5

Q95. Find the odd one out:
(a) Auditorium - Chair
(b) Petal - Flower
(c) Finger - Hand
(d) Brick - Wall

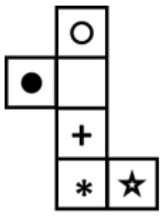
Q96. A, B, C, D, E and F are sitting in a circle facing the centre. 'D' is on the immediate right of 'B' and 'B' is not the immediate neighbour of 'F'. 'C' is between 'A' and 'D'. Who are the neighbours of 'F'?
(a) A and B
(b) C and D
(c) B and D
(d) A and E

Q97. In three of the following four number pairs, the numbers are related in the same way and thus form a group. Which number pair DOES NOT belong to that group?
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
(a) 5 : 30
(b) 10 : 110
(c) 8 : 70
(d) 3 : 12

Q98. A & B means 'A is the brother of B',
A + B means 'A is the daughter of B',
A @ B means 'A is the mother of B' and
A = B means 'A is the father of B'.
If R & G = M & T + S @ L @ D, then which of the following statements is NOT correct?
(a) M is the brother of L.
(b) S is the wife of G.
(c) T is the daughter of R.
(d) R is L's father's brother.

Q99. Consider the five three-letter words given below and answer the questions based on them.
(left) WRD RUV PCR POM DOZ (right)
If all the letters of each word are replaced with the previous letter according to the English alphabetical order, then how many newly formed words will have only two vowels?
(a) 2
(b) 0
(c) 4
(d) 3

Q100. If the given figure is folded to form a cube, which symbol will appear on the surface opposite to O?



(a) 
(b) 
(c) 
(d) 

Solutions

S1. Ans.(c)
Sol. The correct answer is option (c) **Zanskar and Great Himalayas**.
Explanation
1. **Geographical Habitat**: The **Valley of Flowers National Park** lies entirely within the **temperate alpine zone**, known for its rich alpine flora and distinct ecological conditions.
2. **Transition Zone**: The valley occupies a **unique ecological transition zone** between the **Zanskar Range** to the north and the **Great Himalayan Range** to the south. This makes it a highly biodiverse region, acting as a bridge between two major mountain ecosystems.
3. **Ecological Complementarity**: The **gentle, flower-filled landscape** of the Valley of Flowers forms a stunning contrast and ecological complement to the **rugged, high-altitude wilderness** of the **Nanda Devi National Park**, which lies adjacent to it. Together, they create a significant **core zone** of the **Nanda Devi Biosphere Reserve**.
4. **Conservation Importance**: Due to its unique location and biodiversity, the valley has been declared a **UNESCO World Heritage Site**, and it plays a crucial role in Himalayan ecosystem conservation and climate monitoring.

Information Booster

•→Lies in the **temperate alpine zone**.
•→Acts as a **transition zone** between the **Zanskar** and **Great Himalayan Ranges**.
•→Part of the **Nanda Devi Biosphere Reserve**.
•→Forms a contrasting landscape to the rugged **Nanda Devi National Park**.
•→Hosts rare alpine flora and fauna in a fragile mountain ecosystem.

S2. Ans.(b)

Sol. The correct answer is (b) Shubhanshu Shukla

- **Shubhanshu Shukla**, a **Group Captain** in the **Indian Air Force (IAF)**, is part of the **Axiom Mission 4 (Ax-4)** and serves as the **pilot** of the mission.
- He was also selected for **India's first human space mission**, **Gaganyaan**, marking a significant milestone in India's space exploration journey.
- As a **fighter combat test pilot**, he has more than **2,000 hours of flying experience** and has flown advanced aircraft like **Sukhoi-30MKI**, **Mig-21**, and **Mig-29**.

Information Booster:

- **Axiom Mission 4 (Ax-4)** is a **commercial space mission** that will take a diverse crew to the **International Space Station (ISS)**, with astronauts from **India**, **USA**, **Poland**, and **Hungary**.
- The mission involves **scientific research**, **public outreach**, and **international collaboration**.
- **Shubhanshu Shukla's role** as the **pilot** includes managing **flight dynamics**, **navigation**, and **emergency procedures** during the mission. His participation marks India's growing presence in **global space missions**.

Additional Information:

- **Mission Details**:
  - **Launch Site**: NASA's **Kennedy Space Center**
  - **Launch Date**: Initially set for June 10, 2025, but has been postponed.
  - **Mission Duration**: Approximately **14 days** aboard the **ISS**.
  - **Crew Members**: Includes **Shubhanshu Shukla (India)**, **Peggy Whitson (USA)**, **Slawosz Uznański-Wiśniewski (Poland)**, and **Tibor Kapu (Hungary)**.
- **Scientific Goals**:
  - Conduct **experiments on human health**, **microgravity**, **biological systems**, and **life support systems**.
  - Gather data to help with **long-term human space missions**.

S3. Ans.(b)

Sol. The correct answer is (b) Directive Principles

- The provision for **free legal aid** is mentioned under **Article 39A** of the **Directive Principles of State Policy (DPSP)**, which directs the state to ensure that the legal system provides free legal aid to the poor and disadvantaged.
- While the Directive Principles are not enforceable by the courts, they are fundamental in guiding the state in making laws and shaping policies for social justice and the welfare of the people.

Information Booster:

- **Article 39A**: It was added by the 42nd Amendment Act of 1976 and emphasizes the importance of providing access to justice through free legal aid to the weaker sections of society.
- **Directive Principles of State Policy (DPSP)**: These are guidelines in the Indian Constitution (Part IV) that aim to establish social and economic justice. While not legally enforceable, they serve as a foundation for policy-making.
- The **Right to Free Legal Aid** is crucial in ensuring that justice is accessible to all, regardless of their financial situation.

S4. Ans.(b)

Sol. The correct answer is option (b) **June 11, 2025**.

Explanation

•→**648th Birth Anniversary** of **Sant Kabirdas** will be observed on **June 11, 2025**.
•→According to Drik Panchang, the **Purnima Tithi** (full moon day) associated with this event begins at **11:35 AM on June 10** and ends at **13:13 PM on June 11, 2025**.

•→While the tithi spans two days, **June 11** is considered the main date for the celebration of Sant Kabirdas's birth anniversary.
•→Kabirdas, a 15th-century mystic poet and saint, is known for his spiritual teachings and hymns that advocate devotion, equality, and unity, transcending caste and religious divisions.
•→His **philosophy of unity** and **divine love** continues to inspire people across various communities.
Information Booster
•→The **648th Birth Anniversary** of **Sant Kabirdas** will be celebrated on **June 11, 2025**.
•→**Purnima Tithi** starts on **June 10 at 11:35 AM** and ends on **June 11 at 13:13 PM**.
•→Kabir's teachings focus on **devotion** to God, unity, and equality.
•→His songs and hymns are still widely sung in India, especially in the **Bhakti** and **Sufi traditions**.
•→**Kabir's message** was simple: the focus on **love for the divine** and **equality among all people**.

S5. Ans.(c)
Sol. The correct answer is (C) Music.
Explanation:
Arijit Singh, the renowned Indian playback singer, was honored with the Padma Shri award in the Music category in 2019 for his outstanding contributions to the field of music, particularly in Bollywood playback singing. He is known for his soulful voice and versatility across various music genres.
Information Booster:
Arijit Singh rose to fame with songs like "Tum Hi Ho" from Aashiqui 2 and "Channa Mereya" from Ae Dil Hai Mushkil.
He has received numerous awards for his music, including Filmfare Awards, IIFA Awards, and Zee Cine Awards.
Singh's singing style is deeply rooted in classical music, but he is also adept in contemporary genres like pop and romantic ballads.
Additional Information:
The Padma Shri is one of India's highest civilian awards, recognizing individuals who have made significant contributions in various fields.

S6. Ans.(a)
Sol. The Tata Institute of Fundamental Research (TIFR) is situated in Mumbai, Maharashtra, India.
• It is a premier research institution in India that focuses on fundamental research in various fields of science, including mathematics, physics, chemistry, biology, and computer science.
• Scientists of Tata Institute of Fundamental Research (TIFR) university have developed a new material called 'black gold' which can absorb light and carbon dioxide.

S7. Ans.(c)
Sol. The correct answer is (c) Five Years to 2030: Accelerating Public Service Delivery for a Sustainable Future
- **United Nations Public Service Day** is observed annually on **June 23** to celebrate the contributions of **public servants** in promoting national development and improving the quality of life for people globally.
- The **2025 theme** for the observance, "**Five Years to 2030: Accelerating Public Service Delivery for a Sustainable Future**," emphasizes the urgency of improving **public service** to meet the **2030 Sustainable Development Goals (SDGs)**.
- The **UN Public Service Awards (UNPSA)** and **Public Service Forum** are key events during this day, recognizing **innovative practices** and **effective governance** models in public administration. The theme reflects the need for governments to accelerate public service delivery as we approach the final years of the SDG agenda.

Information Booster:
- **UN Public Service Day** was established by the **United Nations General Assembly Resolution 57/277** on **December 20, 2002**, with the first observance taking place in **2003**.
- The **UN Public Service Awards (UNPSA)**, initiated in **2003**, recognize **outstanding public service** achievements and encourage **knowledge exchange** globally.
- The **UNPSA** aligns with the **2030 Agenda for Sustainable Development**, particularly focusing on **public service reforms** that drive progress toward the **SDGs**.
- **UN Public Service Forum 2025** will be held in **Samarkand, Uzbekistan**, and will feature **ministerial roundtables**, **capacity-building workshops**, and the **UNPSA Ceremony** to share best practices for **enhancing public service**.

Additional Information:
- The **2025 theme** underscores the urgency of **public service transformation** to ensure the **effective delivery of services** that address global challenges such as **poverty**, **inequality**, and **climate change**.

- The **UNPSA** aims to highlight the innovative approaches taken by **public institutions** in providing solutions for societal needs.
- The **UN Public Service Forum** in **Samarkand** will be a **platform** for sharing **cutting-edge digital governance models**, discussing **capacity-building initiatives**, and fostering global cooperation among governments, civil society, and the private sector.

S8. Ans.(a)
Sol. The correct answer is (a) Maharashtra
- The **Maharashtra** government has introduced a **geo-tagged 13-digit unique identifier system** to **track infrastructure projects** across the state efficiently.
- This system will serve as the primary reference once **administrative approval** is granted and will enable **real-time monitoring**, prevent **duplication**, and enhance **inter-departmental coordination**.
- The initiative, part of the state's broader **digital governance** efforts, aims to register all **infrastructure projects** sanctioned in the last **five years** by **March 2026**.

Information Booster:
- **Geo-Tagged ID Structure**: The **13-character unique ID** includes **state code**, **year code**, **scheme code**, **district code**, **asset type**, and a **serial number**.
- **Pilot Project**: The **pilot phase** of this initiative began in **Wardha district** (Vidarbha), and it will be expanded to cover all departments and districts by **October 2025**.
- **Infra ID Portal**: This **digital platform** integrates with **MRSAC (Maharashtra Remote Sensing Application Centre)** for **geo-tagging** and **project tracking**.

Additional Information:
- **Maharashtra's Push for Digital Governance**: The initiative aims to bring **transparency** in government projects and improve **efficiency** in monitoring their progress.
- **Full Rollout**: The system will be fully implemented across the state by **October 2025**, with all **projects since 2020** expected to be registered by **March 2026**.

S9. Ans.(a)
Sol. LAN stands for **Local Area Network**. It refers to a network that connects computers and devices within a relatively small geographical area, such as an office, school, or home. The primary function of a LAN is to enable resource sharing, communication, and data transfer at high speeds over short distances.
Important Key Points:
1. LAN connects devices in a localized area using Ethernet or Wi-Fi technology.
2. Typically provides high data transfer rates and lower latency compared to Wide Area Networks (WAN).
3. Commonly used to connect desktops, laptops, printers, and other devices.
4. LANs can be wired (using cables like Ethernet) or wireless (using Wi-Fi).
5. Enables easier file sharing, internet access, and internal communication.

Knowledge Booster:
•→**Large Area Network** and **Land Area Network** are not standard networking terminologies.
•→**Line Access Network** does not accurately describe a standard network type.

S10. Ans.(c)
Sol. The correct answer is (C) Vacancy in the office of the President and the Acting President.
Explanation:
Article 65 of the Indian Constitution deals with the situation when there is a vacancy in the office of the President of India. It states that the **Vice President** of India will act as the President until a new one is elected.
- The article ensures that there is no gap in the functioning of the country's head of state, maintaining the continuity of governance even in case of death, resignation, or impeachment of the President.

Information Booster:
- **Article 65** applies in cases where the office of the President is vacant, either due to death, resignation, or any other reason.
- The **Acting President** (usually the Vice President) holds the same powers as the President for the time being.

Additional Information:
- This provision ensures that the President's powers are not left unexercised, ensuring the smooth functioning of the Indian government.

S11. Ans.(b)
Sol. The correct answer is: **(b) Akbar's ancestors**
Explanation:
The **Akbarnama**, written by **Abul Fazl**, the court historian of Emperor Akbar.
It is a valuable **primary source** for understanding **Mughal history and governance**.
Information Booster:

- *Akbarnama* is a **three-volume chronicle**, commissioned by Akbar himself.
- The **first volume** of the Akbarnama provides a **detailed account of Akbar's ancestors**, tracing their lineage and background from **Timur (Tamerlane)** and **Chengiz Khan** up to the birth and early years of Akbar.
- **Second Volume:** Events during **Akbar's reign** (from 1556 onwards).
- **Third Volume (Ain-i-Akbari):** Details of **administration, military, revenues, customs**, and the **geography** of the empire.

S12. Ans.(c)
Sol. The correct answer is (c) Eight

- Iran has confirmed that Russia will construct **eight** nuclear reactors across the country.
- This agreement is part of a broader bilateral energy partnership between Russia and Iran, aiming to expand Iran's civilian nuclear energy capacity.
- The reactors will be built under the auspices of **Rosatom**, Russia's state nuclear agency, with four of them located in **Bushehr Province** (southern Iran).
- The announcement aligns with Iran's strategy to triple its nuclear energy output, reducing its reliance on fossil fuels and strengthening energy cooperation with Russia.

Information Booster:
• Russia's **Rosatom** will be the key implementer of this nuclear project.
• Iran's **Bushehr Nuclear Power Plant** is currently the only operational nuclear facility in the country, completed by Russia in 2011.
• Iran aims to enhance its domestic power generation capacity through these new reactors.
• This collaboration is significant in strengthening **Iran-Russia** strategic ties, particularly in the energy sector.
• The reactors will be constructed in accordance with international regulations and the framework of the **IAEA** (International Atomic Energy Agency).

S13. Ans.(d)
Sol. The correct answer is (d) Bharatanatyam

- **Tanjore Balasaraswati** was a **legendary exponent of Bharatanatyam**, one of the oldest and most revered classical dance forms of India.
- She is credited with bringing **Bharatanatyam** from the temples to the global stage in the **20th century**.
- Balasaraswati belonged to a traditional **devadasi** family from **Tanjore (Tamil Nadu)** and received training from a very young age.
- She played a pivotal role in **reviving and popularizing Bharatanatyam** as a respected performance art.

Information Booster:
• Born in **1918** in Chennai, Balasaraswati hailed from a **family of musicians and dancers**.
• Awarded **Padma Bhushan (1957)** and **Padma Vibhushan (1977)**.
• She is also the **first performer of Bharatanatyam** at a **music academy conference**.
• Known for her mastery in **abhinaya (expressional dance)**.
• Taught Bharatanatyam in **India and abroad**, including the **USA and Japan**.
• Described by many as the **greatest Bharatanatyam dancer of the 20th century**.

S14. Ans.(c)
Sol. The correct answer is (c) Kabaddi and Kho-Kho.

- In **December 2024**, the **Uttar Pradesh government** organized school-level sports competitions under the **PM SHRI scheme**. The event was held from **December 9 to 14**, and included traditional sports like **kabaddi** and **kho-kho** along with other athletic events such as races and relay races. The inclusion of these traditional sports is aimed at promoting **physical fitness** and preserving **cultural heritage** among students.

Information Booster:

- **PM SHRI Scheme:**
  - **Launched**: The **PM SHRI (Pradhan Mantri Schools for Rising India)** scheme was launched by the **Government of India** to enhance the quality of education in **selected government schools**.
  - **Objective**: It focuses on improving **infrastructure, digital learning**, and providing **holistic development** opportunities for students in line with the **National Education Policy (NEP)** 2020.
  - **History**: The scheme was introduced in **2022** with the aim of transforming government schools into centers of excellence in education and fostering **overall growth** in students.
  - **Key Focus Areas**:
    - **Curriculum Development**
    - **Co-curricular activities**
    - **Digital Education**
    - **Teacher Training and Capacity Building**
    - **Physical and mental well-being**

Additional Information:

Table of Sports and Terminology

Sport	Terminology
Kabaddi	1. **Raiding** – A player crosses into the opponent's half to tag an opponent.
	2. **Anticipation** – The ability to predict the movements of the opposing team during a raid.
	3. **Do-or-Die Raid** – A raid where the raider must score a point or face elimination.
	4. **Tackle** – A defensive move to stop a raider by holding or pinning them down.
	5. **Bonus Line** – A line that a raider crosses to score a bonus point during the raid.
Kho-Kho	1. **Chaser** – A player who tries to tag members of the opposing team.
	2. **Runner** – A player who tries to avoid being tagged by the chaser.
	3. **Kho** – The act of calling a teammate to take over chasing during a match.
	4. **Post** – The boundary of the court where the chaser must stay while trying to tag the opponent.
	5. **Turn** – A period when a player has the opportunity to chase the opponent, typically after a rotation.
Cricket	1. **Bowling** – The act of delivering the ball to the batsman.
	2. **Over** – A set of six balls bowled by the same bowler.
	3. **LBW (Leg Before Wicket)** – A method of dismissal when the ball hits the batsman's leg in line with the stumps.
	4. **Duck** – A term used when a batsman is dismissed without scoring any runs.
	5. **Century** – A score of 100 runs by a batsman in a single innings.
Badminton	1. **Shuttlecock** – The feathered object hit back and forth in the game.
	2. **Clear** – A stroke where the shuttle is hit high and deep into the opponent's court.
	3. **Smash** – A powerful downward stroke aimed to score a point by hitting the shuttle sharply.
	4. **Drop Shot** – A soft shot that lands just over the net, intended to catch the opponent off guard.
	5. **Rally** – The exchange of shots between players during a game.
Football	1. **Dribbling** – The technique of controlling and moving the ball past opponents using feet.
	2. **Offside** – A violation where a player is positioned ahead of the ball at the moment it is passed.
	3. **Corner Kick** – A kick taken from the corner of the field after the ball goes over the goal line, last touched by a defender.
	4. **Penalty Kick** – A free shot taken from the penalty spot after a foul within the penalty area.
	5. **Header** – A move in which a player uses their head to strike the ball, typically for passing or shooting.

S15. Ans.(b)

Sol. The correct answer is: (b) 25 years

Explanation:

•→According to **Article 173** of the **Indian Constitution**, a person must be **at least 25 years old** to contest **Legislative Assembly elections** in any Indian state.

•→This is a part of the eligibility criteria for being a **Member of Legislative Assembly (MLA)**.

Information Booster:

•→Article **173(b)** specifies the **minimum age of 25** years for Legislative Assembly.

•→For **Lok Sabha**, the minimum age is also **25 years** (Article 84).

•→For **Rajya Sabha and Legislative Council**, the age requirement is **30 years**.
•→For **voting**, the age is **18 years**, as per the **61st Constitutional Amendment Act, 1988**.
•→The person must be a **citizen of India** and meet other electoral qualifications.
•→The candidate must be registered as a **voter in any constituency** of the state.

S16. Ans.(d)
Sol. Sol. Bihar will host the prestigious Khelo India Youth Games (KIYG) and the Khelo India Para Games (KIPG) in April 2025.

S17. Ans.(b)
Sol. Alauddin Khilji is renowned for his market control policy. He was the second ruler of the Khilji dynasty and reigned from 1296 to 1316 AD. Alauddin implemented a series of economic reforms, particularly his market control measures, to regulate the prices of goods and curb inflation. His policy involved strict measures to ensure the availability of essential commodities at fixed prices and included setting up a network of market controllers and spies to prevent hoarding and black marketing.

S18. Ans.(a)
Sol. The correct answer is **(a) Tripura**.
•→**Tripura**, a state in northeastern India, does not share a boundary with **Nepal**.
•→The states of **Uttarakhand**, **Uttar Pradesh**, and **Bihar** all share borders with Nepal, while Tripura shares its borders with Bangladesh and is located far from Nepal.
•→**Tripura** is located in northeastern India and shares its borders with Bangladesh but does not touch Nepal.
•→The India-Nepal border is open, allowing free movement of people between the two countries.

S19. Ans.(a)
Sol. The correct answer is (a) Kerala
- **Kerala** became the first Indian state to establish a **Senior Citizens Commission** in March 2025.
- This commission was established under the **Kerala State Senior Citizens Commission Act, 2025**, with the primary objective of protecting the rights and welfare of senior citizens.
- The commission will act as an advisory body, focusing on formulating policies, addressing grievances, and raising awareness about issues faced by senior citizens in the state.

Information Booster:
- **Purpose**: The commission aims to safeguard the rights of senior citizens and provide recommendations to the government regarding policies that affect them.
- **Key Features**: It will focus on **policy formulation**, **grievance redressal**, and **awareness programs** concerning senior citizens.
- **Legal Basis**: The **Kerala State Senior Citizens Commission Act, 2025** laid the legal foundation for the commission's formation.
- **Impact**: The establishment of this commission reflects **Kerala's commitment** to addressing the needs of its elderly population and promoting their overall well-being.

S20. Ans.(c)
Sol. Windows is the official and default operating system developed by Microsoft. It is pre-installed on most Microsoft-branded devices such as Surface laptops, desktops, and tablets. It supports a wide range of software and hardware and is known for its user-friendly interface.
Important Key Points:
1. Windows OS includes popular versions like Windows 10, Windows 11, etc.
2. It is widely used in personal computing, enterprise environments, and education.

3. Microsoft is both the developer and distributor of the Windows operating system.

Knowledge Booster:

- **Chrome OS** is developed by Google and is used in Chromebooks.
- **Linux** is an open-source OS used on servers and some desktops, but not default on Microsoft devices.
- **iOS** is developed by Apple and is used only on iPhones and iPads.

S21. Ans.(c)

Sol. The correct answer is (c) Holambi Kalan, Delhi

- **India's first e-waste recycling park** is being established in **Holambi Kalan**, North Delhi.
- This park is part of India's broader strategy to address the increasing problem of **electronic waste** (e-waste), processing up to **51,000 tonnes** of e-waste annually.
- The project aims to **formalize the recycling sector**, promote **green jobs**, and foster a **circular economy** by turning e-waste into valuable raw materials.
- It is being developed through a **public-private partnership** (PPP) under the **Design, Build, Finance, Operate, and Transfer** (DBFOT) model.

Information Booster:

• The e-waste park will span **11.4 acres** and process e-waste from **106 categories**.
• The project is expected to generate over **₹350 crore** in revenue.
• It will offer **1,000+ green jobs** and upskill informal workers in the e-waste sector.
• The eco park aims to **reduce dependency on raw materials** and minimize landfill use.
• The facility will feature **training centers** for workers and rehabilitation infrastructure for informal recyclers.
• The project is expected to complete in **18 months**.

S22. Ans.(c)

Sol. The Correct Answer is: **(c) Morley-Minto Reforms**

Explanation:

The **Indian Councils Act of 1909** is popularly known as the **Morley-Minto Reforms**, named after **John Morley** (Secretary of State for India) and **Lord Minto** (the Viceroy of India at that time). The Act marked the **first attempt by the British to introduce political reforms** by expanding the legislative councils and involving Indians in governance.

Information Booster:

• Introduced **separate electorates for Muslims**, starting communal politics.
• **First Indian** appointed to Viceroy's Executive Council: **S.P. Sinha**.
• Enlarged **legislative councils** at the Centre and provinces.
• Aimed to **increase Indian participation** in administration.

Additional Information:

• **Montagu-Chelmsford Reforms** – Relates to **Government of India Act, 1919**.
• **Pitt's India Act** – Enacted in 1784 to establish control over the East India Company.

S23. Ans.(d)

Sol. The correct answer is (d) **Ganga**.

Explanation:

The **Kosi** is a major tributary of the **Ganga** River. It originates in the **Tibetan Plateau** and flows through the northern regions of Bihar in India before joining the Ganga.

The Kosi is known for its shifting course and is often referred to as the "Sorrow of Bihar" because of its frequent and devastating floods.

Information Booster:

- **Origin and Path:** The Kosi river originates from the **Tibetan Plateau** and enters India through **Nepal**, flowing into Bihar and eventually merging with the Ganga near **Katarniaghat**.
- **Significance:** The river plays an important role in the agricultural development of Bihar but is also notorious for its **flooding** due to its highly erratic course.
- **Flood Control:** The Kosi has caused significant destruction over time, prompting various efforts to control its flow, including embankments and river management projects.

Additional Information:

- **Yamuna:** The Yamuna is a tributary of the **Ganga.**
- **Brahmaputra:** The Brahmaputra is a separate river flowing across India, Bangladesh, and China.
- **Mahanadi:** The Mahanadi is a river flowing primarily through Odisha and Chhattisgarh.

S24. Ans.(c)

Sol. ✅ (c) Nitrogen fixation: • Nitrogenase is a key enzyme that converts atmospheric N_2 into ammonia (NH_3), a usable form for plants. • Found in Rhizobium (legume nodules) and Azotobacter (free-living). • Requires anaerobic conditions and energy (ATP) to function.

❌ (a), (b), (d): • These are part of nitrogen metabolism but are not catalyzed by nitrogenase.

S25. Ans.(b)

Sol. The correct answer is (b) Japan

- **Japan** ranks **first** in the world with the highest average IQ of **106.48** in **2025**.
- Japan is known for its **advanced technology**, **strong problem-solving abilities**, and a **robust education system**, which significantly contribute to the intelligence levels of its population.
- The country's focus on **hard work**, discipline, and innovation plays a crucial role in its high IQ ranking.

Information Booster:

- **Taiwan** comes **second** with an average IQ of **106.47**. The country excels in **technology** and has a highly educated and diligent population.
- **Singapore** ranks third, with an average IQ of **105.89**, largely due to its focus on **critical thinking** and problem-solving in education.
- **Hong Kong** is fourth with an average IQ of **105.37**, supported by a **healthy diet** and a high-quality education system.
- **China** ranks fifth with an average IQ of **104.10**, benefiting from rapid **economic growth** and a competitive education system.

S26. Ans.(b)

Sol. The correct answer is the Rashtrakuta period. Cave 15 at Ellora, also known as the Dashavatara Cave, is one of the earliest Hindu caves in the complex and dates back to the time of the Rashtrakuta king Dantidurga. Ellora is renowned for its impressive rock-cut architecture, which includes Hindu, Buddhist, and Jain monuments constructed between the 6th and 10th centuries CE.

This cave is particularly notable for its detailed iconography of Hindu deities, especially Vishnu and Shiva. Among its finest reliefs is the powerful scene of Vishnu as Narasimha, the man-lion incarnation, who defeats the demon Hiranyakashipu. The sculpture vividly depicts Narasimha emerging from a pillar, laying his divine hand on the shoulder of Hiranyakashipu before killing him, fulfilling the unique conditions of the demon's death.

The style of architecture and sculptural detailing in Cave 15 reflects the Dravidian style, adopted and promoted by the Rashtrakutas. They built many monumental rock-cut temples, including the world-famous Kailasa temple (Cave 16) at Ellora, further affirming their influence on Indian temple architecture.

Information Booster:

•→Ellora Cave 15 is known as the Dashavatara Cave.
•→Built during the reign of Rashtrakuta king Dantidurga.
•→Depicts Narasimha avatar of Vishnu, slaying Hiranyakashipu.
•→Part of Ellora complex (600–1000 CE), showcasing Hindu, Buddhist, and Jain art.
•→Built in Dravidian style, with a two-storey structure and Nandi Mandapa.
•→The cave includes river goddess motifs and monolithic architecture.

Additional Knowledge:

•→**Gurjara Pratihara period:** While the Gurjara-Pratiharas contributed significantly to temple architecture (e.g., Khajuraho by their vassals, the Chandelas), their style was more open-pavilion and ornate than rock-cut. They did not build Ellora's caves.
•→**Chalukya period:** The Chalukyas (especially of Badami) were known for temple architecture in Karnataka between the 5th and 8th centuries, focusing on structural temples in the Malaprabha river basin—not the Ellora caves.
•→**Gupta period:** Although the Gupta dynasty pioneered temple architecture and rock-cut shrines, their works primarily focused on northern India. While stylistically influential, they preceded the Rashtrakutas and did not build Ellora Cave 15.

S27. Ans.(a)

Sol. The correct answer is **(A) 1858 AD**.

Explanation:

In **1858 AD**, the **British East India Company** was formally dissolved, and the rule over India was transferred to the **British Parliament**. This transfer of power was a result of the **Indian Rebellion of 1857** (also called the **Sepoy Mutiny**), which exposed the inefficiency and mismanagement of the East India Company in governing India. The **Government of India Act 1858** was enacted to establish direct control of India under the British Crown, marking the beginning of the **British Raj**.

Information Booster:

- The **Government of India Act 1858** marked the end of **Company rule** and the beginning of **direct British rule** through the **Crown**.
- The **Act** created the position of the **Secretary of State for India**, who was a British Cabinet member responsible for overseeing India's administration.
- The **Indian Rebellion of 1857** was a turning point in Indian history, as it led to significant changes in the British administration, with the **British Crown** taking over the management of India.
- This period marked the beginning of the **British Raj**, which lasted until **India's independence in 1947**.

Additional Knowledge:

- **1857 AD**: The **Indian Rebellion** occurred, which was a widespread uprising against the British East India Company. Although the rebellion was suppressed, it had long-lasting effects on British policies in India.
- **1861 AD**: The **Indian Councils Act 1861** was passed, which allowed for limited Indian participation in legislative processes but did not change the overall control of the British Crown over India.
- **1860 AD**: The **Indian Penal Code (IPC)** was enacted in India, establishing a uniform system of criminal law.

S28. Ans.(b)

Sol. The Correct Answer is (b) Operation Abhyas.

- The civil defence mock drill conducted in Bengaluru is named 'Operation Abhyas,' which aimed to improve public awareness and emergency preparedness.
- It simulated real-life scenarios, such as fire rescues, debris entrapment, and high-rise evacuations, to ensure that citizens and emergency services are ready for potential crises.
- The drill was part of a nationwide initiative under the Ministry of Home Affairs to enhance civil defence readiness amid heightened security concerns.

Information Booster:

- 'Operation Abhyas' took place on May 7, 2025, in the Halasuru area of Bengaluru, from 3:48 PM to 7:00 PM.
- The drill was conducted by the Karnataka State Fire and Emergency Services Department.
- The exercise was prompted by rising national security concerns following a terrorist attack in Pahalgam, Jammu & Kashmir.
- It tested the coordination and response of various departments, including police, civil defence, and fire services.

S29. Ans.(a)

Sol. The correct answer is **(A) Awadh**.

Explanation:

Mirza Wajid Ali Shah was the **last Nawab of Awadh (Oudh)** and ruled during the **Indian Rebellion of 1857**. He was one of the key figures associated with the revolt in northern India. Although he was not a major military leader in the rebellion, his **exile** following the British annexation of **Awadh** contributed to the growing unrest among the Indian rulers. **Awadh** was one of the major centers of rebellion during 1857, with both **soldiers** and **civilians** fighting against the British East India Company.

Information Booster:

- **Mirza Wajid Ali Shah** was **exiled to Calcutta** (now Kolkata) after the British annexed **Awadh** in 1856, under the policy of **Doctrine of Lapse**. His exile became a symbol of British oppression, adding to the anger that fueled the rebellion.
- **Awadh** was one of the most significant regions in the **1857 Revolt**, with many **soldiers** from the **East India Company** joining the rebellion, particularly after the **Mangal Pandey incident** in **Meerut**.
- **The British annexation of Awadh** was one of the major triggers for the revolt, as the **Nawab's** power was reduced, and the British took control of the region's governance.
- **Mirza Wajid Ali Shah** is remembered as a patron of arts and culture, with contributions to **music**, **dance**, and **literature**, and his reign marked the cultural zenith of Awadh.

Additional Knowledge:

- **Meerut**: **Meerut** was the location where the **rebellion began** in May 1857, particularly with the mutiny of the **Sepoys** and the start of the **Indian Rebellion**.
- **Kanpur**: **Kanpur** (then known as **Cawnpore**) was a significant site of the rebellion, where **General Nana Sahib** led the insurgents against British forces.
- **Satara**: The region of **Satara** in Maharashtra was also involved in the rebellion, with leaders like **Tantia Tope** and **Rani of Jhansi** emerging as key figures.

S30. Ans.(c)
Sol. Only **IPv4** (Internet Protocol version 4) and **IPv6** (version 6) are standardized and in widespread use today. There is **no** "IPv11" defined in any RFC, so **IPV11** is not a valid IP version.
Important Key Points:
1. **IPv4** uses a 32-bit address space (about 4.3 billion addresses).
2. **IPv6** uses a 128-bit address space (allowing for a vastly larger number of unique IP addresses).
3. Other version numbers such as **IPv5** were experimental (an unreleased "Stream Protocol") and never deployed.

Knowledge Booster:
- **IPV4:** The original, still-widely-used Internet Protocol (RFC 791).
- **IPV6:** The modern successor designed to overcome IPv4 address exhaustion (RFC 8200).

S31. Ans.(a)
Sol. The correct answer is **(A) Kings and warriors**.
Explanation:
In the Vedic period, the term **'Rajanya'** referred to the class of **kings** and **warriors**. The **Rajanyas** were responsible for the defense of the tribe or kingdom and played a crucial role in the **administration** and **protection** of the community. They were often involved in **military activities** and participated in **rituals** and governance.
Information Booster:
- The **Rajanyas** were part of the **Kshatriya varna**, which was one of the four primary classes in **Vedic society**.
- The primary duties of the **Rajanya** included leading the army in battles, protecting the people, and ensuring justice and law.
- The **Rajanyas** were also responsible for the **administration** of the region and played a role in important **Vedic rituals** and **sacrifices**, alongside the **Brahmins**.
- Over time, the **Rajanya** class evolved into the **Kshatriya** class, which later became the **warrior class** in the **Varna system** of Hindu society.

Additional Knowledge:
- **Merchants and traders**: In the Vedic period, merchants and traders were typically part of the **Vaishya** class, responsible for commerce, trade, and economic activities.
- **Farmers and labourers**: These individuals were generally part of the **Shudra** class, which served the needs of society through agricultural and manual labor.
- **Priests and scholars**: **Brahmins** were the priests and scholars in the Vedic society, responsible for performing religious rituals, maintaining sacred knowledge, and teaching.

S32. Ans.(b)
Sol. The correct answer is (b) **Gujarat and Maharashtra**.
Explanation:
Dadra and Nagar Haveli is a union territory of India that lies between the states of **Gujarat** and **Maharashtra**. It was historically a Portuguese colony until it was merged with India in 1961. The territory is located on the western side of India and is bordered by Gujarat to the north and Maharashtra to the south.
Information Booster:
- **Geographical Significance:** Dadra and Nagar Haveli is strategically located in the western region of India, with a coastline along the Arabian Sea.
- **Merged with India:** The area was a Portuguese colony until it was annexed by India in 1961 along with Goa and Daman and Diu.
- **Recent Change:** In 2020, Dadra and Nagar Haveli was merged with Daman and Diu to form a larger Union Territory known as **Dadra and Nagar Haveli and Daman and Diu**.

Additional Information:
- **Capital:** The capital of Dadra and Nagar Haveli is **Silvassa**.
- **History:**
  - Dadra and Nagar Haveli was under Portuguese control for several centuries before being annexed by India in **1954**.
  - It became a Union Territory after India gained independence, and its administration was later merged with **Daman and Diu** in **2020** to form a single Union Territory.
- **Culture:** The region has a mix of cultures, influenced by Gujarati, Marathi, and traditional tribal elements. The local people celebrate various festivals like Diwali, Holi, and Navratri.
- **Economy:** The economy is primarily based on industries such as textiles, agriculture (rice and sugarcane), and tourism. The region has also attracted industrial investments due to tax incentives and a strategic location.

S33. Ans.(a)

Sol. The correct answer is (a) Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)

- The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) completed 9 years in June 2025.
- Launched in June 2016, PMSMA aims to provide free, quality antenatal care (ANC) services to pregnant women, particularly those in their second and third trimesters.
- The scheme's focus is on reducing maternal and neonatal mortality by ensuring early identification and management of high-risk pregnancies.
- It operates on the 9th of every month across the country, engaging both public and private healthcare professionals.

Information Booster:

• Over 6.19 crore pregnant women have benefited from PMSMA services.
• The scheme has contributed to a significant decline in the Maternal Mortality Ratio (MMR).
• It integrates with other maternal health initiatives like JSY, JSSK, and SUMAN.
• E-PMSMA was introduced in 2022 to enhance follow-up for high-risk pregnancies.
• It is aligned with the RMNCAH+N goals under the National Health Mission (NHM).

Additional Information:

• **(b) Pradhan Mantri Jan Dhan Yojana:** While a significant scheme, it was launched in 2014
• **(c) Ayushman Bharat:** Launched in 2018, this scheme is focused on providing health insurance.
• **(d) Beti Bachao Beti Padhao:** Launched in 2015, this scheme aims at gender equality.

S34. Ans.(c)

Sol. Part XI of the Indian Constitution encompasses Articles 245 to 263, detailing the legislative relations between the Union and the States. This part delineates the domains of both central and state authorities, ensuring a clear demarcation of legislative powers and preventing potential conflicts.

Information Booster:

•→Part IX**Articles**243 to 243O of the Indian Constitution contains provisions for the Panchayats, which are units of local self-governance in rural areas. It outlines their structure, powers, and functions, and establishes a three-tier Panchayati Raj System at the village level, intermediate level, and district level.
•→Part VI of the Constitution contains provisions for the functioning of the State governments. It establishes a parliamentary system of government at the state level, a federal system of government, and the judicial system at the state level.
•→Part IV of the Constitution of India (Article 36–51) contains the Directive Principles of State Policy (DPSP). These principles aim at ensuring socio-economic justice to the people and establishing India as a Welfare State.

S35. Ans.(a)

Sol. The correct answer is: (a) The Forms of Oaths or Affirmations

Explanation:

•→The **Third Schedule** of the Constitution lists the **forms of oaths and affirmations** for Union and State ministers, MPs, MLAs, Judges of the Supreme Court and High Courts, CAG, etc.

Information Booster:

•→There are **12 Schedules** in the Indian Constitution.
•→Third Schedule covers **Articles 75, 99, 124, 148, 164, 188, 219**.
•→Oaths are taken before assuming constitutional posts.
•→Administered by **President/Governor or Chief Justice** depending on the office.
•→Format of oath includes **allegiance to the Constitution of India**.
•→Oaths are legally binding under **Article 51A** (Fundamental Duties).

Additional Information:

•→**State List**: Part of **Seventh Schedule**.
•→**Recognized Languages**: Listed in **Eighth Schedule**.
•→**Union List**: Also in **Seventh Schedule**, detailing central powers.

S36. Ans.(c)

Sol. The correct answer is Orographic rainfall

Orographic rainfall occurs when moist air is forced to rise over a natural barrier like a mountain range. As the air ascends, it cools due to the decrease in temperature at higher altitudes. Cooler air holds less moisture, so the water vapor condenses to form clouds and eventually precipitates as rainfall on the windward side of the mountain. This is known as orographic or relief rainfall.

After crossing the peak, the air descends on the leeward side of the mountain, where it becomes warm and dry due to compression. This area receives significantly less rainfall and is called the rain shadow region. This type of rainfall is common in mountainous regions across the world.

Information Booster:
•→Orographic rainfall is most common in hilly or mountainous regions.
•→The Western Ghats in India receive heavy orographic rainfall due to the southwest monsoon winds.
•→The rain shadow region lies on the leeward side of the mountains and is often arid or semi-arid.
•→Orographic rainfall is usually steady and prolonged.
•→It plays a crucial role in sustaining hill forests and river systems.
•→Prominent examples include Cherrapunji and Mawsynram in Meghalaya, some of the wettest places on Earth due to this rainfall.
Additional Information:
•→**Convectional rainfall:** This occurs when the Earth's surface heats up, causing the air above it to rise. As it rises, the moisture condenses and falls as rainfall. It is common in tropical regions and generally occurs in the afternoon. While it is intense, it is also short-lived and localized.
•→**Cyclonic rainfall:** This type of rainfall is associated with cyclones or depressions. When two air masses with different temperatures and moisture levels meet, a front is formed. The warm moist air is forced to rise over the cold air, leading to frontal or cyclonic rainfall. This is typical in temperate regions and is often widespread and long-lasting.
•→**Monsoonal rainfall:** It is seasonal and results from the reversal of winds in tropical regions, especially in South Asia. It is mainly influenced by differential heating of land and sea. While monsoon winds may lead to orographic rainfall, monsoonal rainfall itself is broader and influenced by multiple climatic factors.

S37. Ans.(a)
Sol. The correct answer is a, The location of the Himalayas in the north.
The climate of India is mainly tropical because the location of the Himalayas in the north. The Himalayan Mountain range is located in the northern part of India and it act as a barrier to the cold winds blowing in from Central Asia.
Information booster-
• Eastern and Northern Jetstream enter Asian and travel to China and subsequently try to enter India.
• The Himalayas act as a barrier and block these jet streams and winds that enter our country.

S38. Ans.(d)
Sol. Ctrl + Backspace deletes the entire word to the **left** of the cursor in one go. **Ctrl + Delete** removes the entire word to the **right** of the cursor. Since both shortcuts delete a word at a time (just in opposite directions), option D is correct.
Important Key Points:
1. These shortcuts work not only in MS Word but in most Windows text editors and input fields.
2. On macOS, the equivalent shortcuts are **Option + Delete** (to delete the word to the left) and **Fn + Option + Delete** (to delete the word to the right).

Knowledge Booster:
- **Alt + Ctrl + Delete** is an operating-system-level shortcut on Windows (used to open the security options screen), not for text editing.

S39. Ans.(d)
Sol. Correcct Answer is (D) 21 years
According to the Constitution of India, the minimum age requirement for being a member of a Panchayat is **21 years**. This is specified in **Article 243C** of the Indian Constitution, which sets the eligibility criteria for members of Panchayats. Additionally, the eligibility for being elected as the President of a Panchayat is also 21 years, ensuring that only individuals who are legally adults can hold such positions.
Information Booster:
- Panchayats are local government bodies that function at the village, intermediate, and district levels in India.
- The minimum age requirement of 21 years ensures that candidates have reached a level of maturity and experience to participate in local governance.
- In addition to the age requirement, other eligibility criteria for Panchayat elections include being a citizen of India and fulfilling local residency requirements.
- Panchayats play a key role in grassroots democracy by involving local communities in decision-making processes related to development, welfare, and governance.
- The Panchayati Raj system was strengthened through the **73rd Amendment** of the Indian Constitution in 1992, which provided a constitutional basis for Panchayats and aimed to decentralize political power.

S40. Ans.(c)

Sol. The correct answer is (c) Slice

- **Slice**, a fintech innovator, has launched India's first **UPI-powered bank branch** in the **Koramangala** area of **Bengaluru**. This is a groundbreaking move that integrates traditional banking services with the power of **UPI** (Unified Payments Interface), offering a seamless, cashless banking experience.
- The new branch offers a **UPI-powered ATM** and the **slice UPI credit card**, marking a significant shift in how banking services and formal credit are accessed in India.

Information Booster:

- **UPI-Powered Super Card:**
  - No joining or annual fees.
  - Functions like a credit card through **UPI scan and pay**.
  - Offers up to **3% cashback** on spends.
  - Allows converting spends into **three interest-free EMIs** using the **"slice in 3"** feature.
- **UPI ATM:**
  - **Cash deposits** and **withdrawals** can be done via **UPI**, which makes basic banking services more accessible and economical across India.
- **Operational Uniqueness:**
  - Unlike other fintech companies that rely on banking partners, **slice** has built its own infrastructure, from **core banking to underwriting**.
  - **Instant customer onboarding** and **self-service kiosks** are part of the bank branch.

S41. Ans.(a)

Sol. Given:

Principal (P) = Rs. 13500

Rate of interest (R) = 20% per annum

Time (T) = 2 years

Interest is compounded annually

Formula Used:

$A=P(1+R100)TA=P(1+100R)T$

Solution:

$A=13500(1+20100)2A=13500(1+0.20)2A=13500\times(1.20)2A=13500\times1.44A=19440A=13500(1+10020)2A=13500(1+0.20)2A=13500\times(1.20)2A=13500\times1.44A=19440$

S42. Ans.(c)

Sol. Given:

4% of x = 24

Solution:

$4100\times x=241004\times x=24$

$x=24\times1004=600424\times100=600$

S43. Ans.(d)

Sol. Given:

Tap fills the cistern in 10 hours

Hole empties the full cistern in 8 hours

Both are open, cistern starts empty

Formula Used:

Net work rate = Inlet rate – Outlet rate

Total work = 1 cistern (100%)

Time =Total workNet rateNet rateTotal work

Solution:

Tap rate =110101 , Hole rate =1881

Net rate =18−11081−101

=5−440=405−4
=140=401
Time to empty the cistern=1140=40hours4011=40 hours
Alternate Solution:
Let total capacity = LCM of 10 and 8 = 40 units
Tap fills = 40 ÷ 10 = 4 units/hour
Hole empties = 40 ÷ 8 = 5 units/hour
Net rate = 5 - 4 = 1 units/hour
Time to empty the cistern =401140 = 40 hours

S44. Ans.(b)
Sol. Given:
$\{11 \times (5\times (2^2))\} \div 8 + 19 - 84$
Concept Used:

Operation preference wise	Symbol
Brackets	[], {}, ()
Orders, of	^{x} (power), $\sqrt{}$ (root), of
Division	÷
Multiplication	×
Addition	+
Subtraction	-

Solution:
$\{11 \times (5\times (2^2))\} \div 8 + 19 - 84$
$= \{11 \times (20)\} \div 8 + 19 - 84$
=2208−658220−65
=220−5208=−30088220−520=8−300

S45. Ans.(c)
Sol. Given:
a +1aa1 = 7
to find: a22 +1a2a21
Formula Used:
(a+1a)2=a2+1a2+2(a+a1)2=a2+a21+2
Solution:
From the formula;
a2+1a2=(a+1a)2−2a2+1a2=(7)2−2a2+1a2=49−2=47a2+a21=(a+a1)2−2 a2+a21=(7)2−2 a2+a21=49−2=47

S46. Ans.(c)
Sol. Given:
Length of Train A = 280 m
Man's speed = 5 km/h
Overtaking time = 42 seconds
Train B length = 500 m
Train B speed = 43 km/h (opposite direction)
Formula Used:
Relative speed (same direction) = Speed of Train A − Speed of man
Speed =DistanceTimeTimeDistance
Convert km/h to m/s:1km/h=518m/s1 km/h=185 m/s
Relative speed (opposite direction) = Sum of both speeds
Solution:
Relative speed(train and men) =28042=20342280=320m/s
Converting man's speed(into m/s) =5×518=25185×185=1825m/s
Train A speed =203+2518=14518320+1825=18145 m/s

Now,
Convert Train B speed(into m/s) =43×518=2151843×185=18215 m/s
Relative speed =14518+2151818145+18215 = 20 m/s
Total length to cross = 280 + 500 = 780 m
Time =78020=39seconds20780=39 seconds
Thus, The train will take 39 seconds to cross the other train.

S47. Ans.(d)
Sol. Given:
Length of the rectangular field = 50 meters
Breadth of the rectangular field = 42 meters
Width of the gravel path = 6 meters
Formula Used:
Area of rectangle = Length × Breadth
Area of the gravel path = Area of the outer rectangle - Area of the inner rectangle (lawn)
Solution:
Area of the outer rectangular field:
Area of the outer rectangle (field) = Length × Breadth
Area of the outer rectangle = 50 × 42 = 2100 square meters
Dimensions of the inner rectangular lawn:
Length of the inner lawn = 50 - 2 × 6 = 50 - 12 = 38 meters
Breadth of the inner lawn = 42 - 2 × 6 = 42 - 12 = 30 meters
Area of the inner rectangular lawn:
Area of the inner rectangle (lawn) = Length × Breadth
Area of the inner rectangle = 38 × 30 = 1140 square meters
Area of the gravel path:
Area of the gravel path = Area of the outer rectangle - Area of the inner rectangle
Area of the gravel path = 2100 - 1140 = 960 square meters
The area of the gravel path is 960 square meters.

S48. Ans.(b)
Sol. Given:
If 50 is subtracted from 60% of a number, the result is 40
Solution:
Let the number be x
60100×x−50=4010060×x−50=40
0.60x - 50 = 40
0.60x = 40 + 50 = 90
x =900.600.6090 = 150
Now,
60% of the number = 0.60 × 150 = 90

S49. Ans.(d)
Sol. Given:
Section A: 36 students, average weight = 40 kg
Section B: 44 students, average weight = 35 kg
Formula Used:
Average weight =(n1×avg1)+(n2×avg2)n1+n2n1+n2(n1×avg1)+(n2×avg2)
Solution:
Total weight A = 36 × 40 = 1440 kg
Total weight B = 44 × 35 = 1540 kg
Total students = 36 + 44 = 80
Average weight =1440+154080=298080801440+1540=802980 = 37.25 kg

S50. Ans.(c)
Sol. Given:
The set of observations is: 87, 56, 27, 31, 13, 39, 18, 80, 98, 92, 25
Formula Used:
Median (for odd number of terms) = Value at the positionn+12th2n+1th, where n is the number of observations arranged in ascending order.
Solution:
Arrange the data in ascending order: 13, 18, 25, 27, 31, 39, 56, 80, 87, 92, 98
Total number of terms (n) = 11 (which is odd)
Position of the median =11+12th211+1th = 6th position
6th value in the sorted list = 39

S51. Ans.(d)
Sol. Given:
Total amount = ₹2,000
Solution:
Let A's part = ₹x, then B's part = ₹(2000 − x)
Now,
Half of A's part = One-third of B's part
x2=13(2000−x)3x=4000−2x3x+2x=40005x=4000x=8002x=31(2000−x) 3x=4000−2x 3x+2x=4000 5x=4000 x=800
So, A's part = ₹800
B's part = ₹2000 − ₹800 = ₹1200

S52. Ans.(b)
Sol. Given:
Average of 9 numbers = 17
Average of 7 of these numbers = 16
Concept Used:
Total Sum = Average × Number of Terms
Remaining Sum = Total Sum − Known Sum
Average =SumNumberofTermsNumber of TermsSum
Solution:
Total sum of 9 numbers = 9 × 17 = 153
Sum of 7 numbers = 7 × 16 = 112
Sum of remaining 2 numbers = 153 − 112 = 41
Average of remaining 2 numbers = 41 / 2 = 20.5
The average of the remaining two numbers is 20.5

S53. Ans.(a)
Sol. Given:
The ratio of the corresponding sides of two similar triangles is 3 : 10
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 =(310)2=32102=9:100(103)2=10232=9:100

S54. Ans.(d)
Sol. Given:
The difference between simple and compound interest for 2 years = ₹1600
Rate of interest = 5% per annum.
Time period = 2 years.
Formula Used:
The difference between CI and SI for 2 years is given by:
Difference =P×(R100)2P×(100R)2
Solution:
Substituting values into the formula:
1600=P×(5100)21600=P×(1005)2

1600=P×25100001600=P×1000025
P=1600×1000025=640000P=251600×10000=640000
Thus, the sum of money is ₹6,40,000

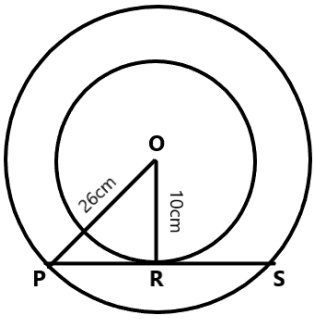
S55. Ans.(c)
Sol. Given:
Y needs 40% marks to pass the exam.
Y gets 20 marks and fails by 40 marks.
Solution:
Let the maximum marks of the exam be M.
The passing marks required = 40% of M.
Y gets 20 marks and fails by 40 marks, so the passing marks = Y's marks + 40.
So, passing marks = 20 + 40 = 60 marks.
Passing marks = 40% of M.
We know that passing marks = 60.
Thus, 40% of M = 60
Convert percentage to decimal:
0.40 × M = 60
M = 60 / 0.40 = 150
The maximum marks of the exam are 150.

S56. Ans.(c)
Sol. Given:
The watch was sold at a loss of 5%.
If the watch was sold for ₹56.40 more, the man would have gained 10%.
Formula Used:
Selling Price =Profit /lossCost Price×100Cost PriceProfit /loss×100
Solution:
Let the cost price of the watch be C
Selling price at a loss of 5%:
Selling Price (SP) =C×(1−5100)=0.95CC×(1−1005)=0.95C
Selling price at a gain of 10%:
New Selling Price =C×(1+10100)=1.10CC×(1+10010)=1.10C
The difference between the two selling prices is ₹56.40:
1.10C - 0.95C = 56.40
0.15C = 56.40
C =56.400.150.1556.40 = 376
Thus, the cost price of the watch is ₹376
Alternate Solution:
if for same cost price selling on first loss and then increase in SP gives profit so:
By question;
5%(loss) + 10%(Profit) = 15%
now, 15% equals 56.40
so 100% equals56.415×100=3761556.4×100=376

S57. Ans.(b)
Sol. Given:
The radii of two concentric circles are 10 cm and 26 cm.
We need to find the length of the chord of the larger circle that is tangent to the smaller circle.
Concept Used:
The perpendicular distance from the center of the larger circle to the chord equals the radius of the smaller circle.
Formula Used:
Pythagoras theorem:

(Hypotenuse)^2 = (Perpendicular)^2 + (Base)^2

Solution:



From the property we, know that OR is perpendicular and Bisect PS
So, By Pythagoras theorem;
$(26)^2 = (PR)^2 + (10)^2$
$676 = (PR)^2 + 100$
$(PR)^2 = 676 - 100 = 576$
PR = 24 cm
Thus, chord PS = 48 cm

S58. Ans.(d)

Sol. Given:

- Central angle (θ) = 150°
- Radius (r) = 12 cm

Formula Used:

Area of Sector =(θ360)×πr2(360θ)×πr2

Solution:

Substitute the values into the formula:
Area of Sector =(150360)×π×(12)2(360150)×π×(12)2
Area of Sector =(150360)×π×144(360150)×π×144 = 60ππ
The area of the sector is approximately 60ππcm^2.

S59. Ans.(d)

Sol. Given:

Ritu's investment = ₹55,000 for 7 months
Monika's investment = ₹42,000 for 11 months
Total profit = ₹41,690

Concept Used:

Profit is divided in the ratio of product of capital and time for each partner.

Formula Used:

Share Ratio = Capital×× Time

Solution:

Ritu : Monika =55000×7:42000×1155000×7:42000×11 = 5 : 6
Ritu's share =55+6×416905+65×41690
=511×41690115×41690
= Rs. 18,950

S60. Ans.(c)

Sol. Given:

A alone can complete the work in 9 days
B alone in 12 days
C alone in 18 days
All started together, and A left after 3 days.

Formula Used:

Total work = Rate × Time

Solution:

Total Work = LCM(9, 12, 18) = 36 units
A's rate =369936 = 4 units/day

B's rate =36121236 = 3 units/day
C's rate =36181836 = 2 units/day
Work done in first 3 days by A, B, and C:
= (4 + 3 + 2) × 3 = 9 × 3 = 27 units
Remaining work = 36 - 27 = 9 units
B and C's combined rate = 3 + 2 = 5 units/day
Time to complete 9 units =9559 days

S61. Ans.(c)
Sol. Given:
The roots of the quadratic equation are $1 + \sqrt{3}$ and $1 - \sqrt{3}$
Concept used:
The quadratic equation is of the formax2+bx+c=0ax2+bx+c=0
Solution:
Sum of roots = 2
product of roots:
(1+3)(1−3)=12−(3)2=1−3=−2(1+3)(1−3)=12−(3)2=1−3=−2
Quadratic equation The equation is formed as
x2x2 - (sum of roots). x + (Product of roots) = 0
Substituting values
x2−2x−2=0x2−2x−2=0
The quadratic equation isx2−2x−2=0x2−2x−2=0
Thus, correct option is **(c)**

S62. Ans.(a)
Sol. Given:
The time taken to swim 91 km downstream = 13 hours.
The time taken to swim 39 km upstream = 13 hours.
The man is swimming in a boat, and we need to find the speed of the boat in still water.
Formula Used:
Speed downstream: boat speed + current speed (since the boat and the current are working together)
Speed upstream: boat speed - current speed (since the current is against the boat)
Speed =DistanceTimeTimeDistance
Solution:
Let speed of boat be b and speed of current be c
Downstream speed (b + c) =9113=7km/h1391=7km/h
Upstream stream (b − c) =3913=3km/h1339=3km/h
adding both equations
we get
2b = 10
b = 5 km/h
Thus, the speed of the boat in still water is 5 km/h

S63. Ans.(d)
Sol. Given:
Sum of two numbers = 58
One number exceeds the other by 18
Solution:
Let the smaller number be x
Then the larger is x + 18
Now,
x + (x + 18) = 58
2x + 18 = 58
2x = 40
x = 20
Greater number = x + 18 = 20 + 18 = 38

S64. Ans.(c)
Sol. Given:
Time taken by A to complete the work = 57 hours
Time taken by B and C together to complete the work = 28 hours
Time taken by A and C together to complete the work = 19 hours
Objective: Find the time taken by B alone to complete the work
Formula Used:
Total work = work rate×× time
Solution:
Total work = LCM(57, 28, 19) = 1596 units
A's rate =159657571596 = 28 units/hour
B and C's combined rate =159628281596 = 57 units/hour
A and C's combined rate =159619=84units/hour191596=84units/hour
C's work rate = 84 - 28 = 56 unit/hour
B's work rate = 57 - 56 = 1 unit/hour
Time taken by B alone =15961=1596hours11596=1596hours

S65. Ans.(b)
Sol. Given:
The number is 35K84, and it must be divisible by 11.
Concept Used:
Divisibility Rule of 11: A number is divisible by 11 if the difference of sum of even place digits to the sum of odd place digit is divisible by 11 or 0
Solution:
(3 + K + 4) - (8 + 5) = 7 + K - 13 = K - 6
to divisible by 11, K must be 6 : 6 - 6 = 0
Now
9K – 5 = 9 × 6 – 5 = 54 – 5 = 49

S66. Ans.(a)
Sol. Given:
Principal from each bank = ₹380,000
Rate for Bank A = 3.5% per annum
Rate for Bank B = 6% per annum
Time = 4 years
Formula Used:
Simple Interest (S.I.)} = \frac{P \times R \times T}{100}
Solution:
S.I. for Bank A:380,000×3.5×4100=₹53,200100380,000×3.5×4=₹53,200
S.I. for Bank B:380,000×6×4100=₹91,200100380,000×6×4=₹91,200
Positive difference: ₹91,200 - ₹53,200 = ₹38,000

S67. Ans.(c)
Sol. Given:
Speed for the first half of the journey = 48 km/h
Speed for the second half of the journey = 24 km/h
Formula Used:
Average Speed =2×Speed1×Speed2Speed1+Speed2Speed1+Speed22×Speed1×Speed2
Solution:
Average Speed =2×48×2448+2448+242×48×24
=2×48×2472=722×48×24
=230472=32km/h=722304=32km/h

S68. Ans.(a)
Sol. Given:
The diameter of the metallic solid sphere is 42 cm.
The cross-sectional diameter of the wire is 0.6 cm.
We need to find the length of the wire.
Formula Used:
Volume of sphere =43πR334πR3
Volume of wire (cylinder) =πr2hπr2h
Solution:
Radius of sphere(R) =422=21cm242=21cm
Radius of wire(r) =0.62=0.3cm20.6=0.3cm
Volume of Sphere = Volume of wire(cylinder)
43×π×(21)3=π×(0.3)2×h43×(21)3=(0.3)2h⟹h=4×21×21×213×0.3×0.3=137200cm34×π×(21)3=π×(0.3)2×h 34
×(21)3=(0.3)2h ⟹h=3×0.3×0.34×21×21×21=137200cm
Thus, the length of the wire is 1372 meters.

S69. Ans.(d)
Sol. Given:
Cost price (C.P) of the oven = ₹605
Discount allowed = 45%
Gain = 37%
Formula Used:
S.P =M.P×(1−Discount%100)M.P×(1−100Discount%)
Gain% =S.P−C.PC.P×100C.PS.P−C.P×100
Solution:
Selling Price (S.P) using the gain formula:
37=S.P−605605×10037=605S.P−605×100
37=S.P−6056.0537=6.05S.P−605
S.P−605=37×6.05=223.85S.P−605=37×6.05=223.85
S.P = 605 + 223.85 = ₹828.85
Marked Price (M.P) using the discount formula:
828.85=M.P×(1−45100)828.85=M.P×(1−10045)
828.85=M.P×0.55828.85=M.P×0.55
M.P =828.850.550.55828.85 = ₹1507
The marked price of the oven is ₹1507
Alternate Solution:
As dealer purchase oven at ₹605
CP = 605
Now, Using formula
MPCP=100+profit100−discountMP605=13755MP=605×13755=₹1507CPMP=100−discount100+profit 605MP=55137
MP=55605×137=₹1507

S70. Ans.(a)
Sol. Given:
cosec2θ = sec(θ - 30)00,
Concept Used:
cosecA=secBcosecA=secB
When, A + B = 9000
Solution:
2θ + (θ - 30)00 = 9000
3θ =90∘+30∘90∘+30∘
3θ =120∘120∘
θ =40∘40∘

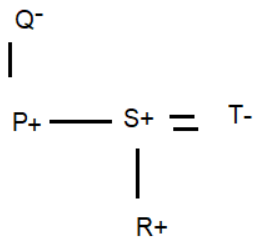
S71. Ans.(d)
Sol.

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 - 7 = 2nd letter, 2nd letter - 3 = 3rd letter and 3rd letter - 5 = 4th letter
Now, we check each options.
Option (a): BURM **(Follow)**
B - 7 = U, U - 3 = R, R - 5 = M
Option (b): QJGB **(Follow)**
Q - 7 = J, J - 3 = G, G - 5 = B
Option (c): HAXS **(Follow)**
H - 7 = A, A - 3 = X, X - 5 = S
Option (d): TMJF **(Not Follow)**
T - 7 = M, M - 3 = J, J - 5≠= F
Thus, correct option is (d).

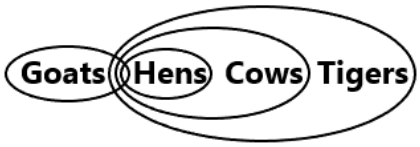
S72. Ans.(a)
Sol. Given- P, Q, R, S, T went on a picnic. 'P' is the son of 'Q'. But 'Q' is not the father of 'P'. 'R' is the son of 'S', who is the brother of 'P'. 'T' is the wife of 'S'.

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



'P' is uncle of 'R'.
option a is correct.

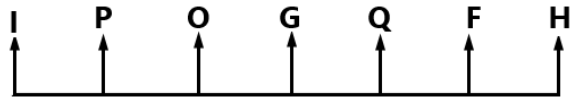
S73. Ans.(c)
Sol. Statements:
1. Some goats are hens.
2. All hens are cows.
3. All cows are tigers.
From the given statements possible Venn diagram will be.



Conclusions:
I. All cows are goats. (**False**, some goats are hens, and hens are cows, but that doesn't mean all cows are goats.).
II. Some tigers are hens. (**True**, if all hens are tigers, then it's certainly true that some tigers are hens).
So, **Only conclusion II follows.**
Thus, correct option is (c).

S74. Ans.(d)
Sol. Given: In a certain code language, if I is written as P, P as A, A as O, O as N, N as C, C as T and T as I.
Logic: Direct coding is given.
For, CAPTION
C → **T**, A → **O**, P → **A**, T → **I**, I → **P**, O → **N**, N → **C**
So, **CAPTION** is written as **TOAIPNC**.
Thus, correct option is (d).

S75. Ans.(d)
Sol. Given:
Seven friends, F, G, H, I, O, P and Q, are sitting in a row facing north.
Only two people sit between I and G.
Only H sits to the right of F.
Only one person sits between G and F.
O sits at some place to the right of P but at some place to the left of Q.
From the given information seating arrangement will be.



Q sits third from the right end of the line.
Thus, correct option is (d).

S76. Ans.(c)
Sol. Given:
GIK, MOQ, SUW, ?, EGI,

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: Each letter + 6
First letters:
G + 6 = M
M + 6 = S
S + 6 = Y
Second letters:
I + 6 = O
O + 6 = U
U + 6 = A
Third letters:
K + 6 = Q
Q + 6 = W
W + 6 = C
The missing term is **YAC**.
Thus, correct option is (c).

S77. Ans.(b)
Sol. If the 10th day of the month is a Saturday, let's count the days from the 10th to the 27th.
There are 17 days between the 10th and the 27th.
Now,
17 ÷ 7 = 2 weeks and 3 extra days.
Starting from Saturday, adding 3 days:
Saturday → Sunday → Monday → Tuesday.
So, the 27th will be a **Tuesday**.
Thus, correct option is (b).

S78. Ans.(c)
Sol. Given:
IJF → PQM
RSO → YZV
EFB: ?

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: Add +7 to the position of each letter in the alphabet.
IJF → PQM
I + 7 → P
J + 7 → Q
F + 7 → M
RSO → YZV
R + 7 → Y
S + 7 → Z
O + 7 → V
Now for **EFB**:
E + 7 → L
F + 7 → M
B + 7 → I
So, **EFB** is coded as **LMI**.
Thus, correct option is (c).

S79. Ans.(c)
Sol. Statement:
Fake news has become a problem of the 21st century over the globe.
Arguments:
I. A global level mechanism is needed to combat this worldwide problem.
This argument strengthens the statement because it acknowledges the global nature of the fake news problem and calls for a worldwide solution.
II. Problems related to fake news are only present in India.
This argument weakens the statement by suggesting that fake news is only a problem in India, thus contradicting the global nature of the issue.
Thus, the correct option is **(c) II weakens while I strengthens the statement.**

S80. Ans.(c)
Sol. Given:
A, B, C, D, E and F live on six different floors of the same building.
The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on, till the topmost floor is numbered 6.
B lives on an odd numbered floor but not 3.
The sum of floors on which B and D live is 7.

E lives immediately below F.
C lives on the top floor.
From the given information arrangement will be.

Floor	Person
6	C
5	B
4	F
3	E
2	D
1	A

3 people live above E.
Thus, correct option is (c).

S81. Ans.(d)
Sol. Given Series: Z1, Y4, X9, ____
Logic:
The first letters are following a backward alphabetical order: Z, Y, X, W.
The numbers are squares of consecutive integers: 1^2, 2^2, 3^2, 4^2.

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

Z (1st letter) → Y (2nd letter) → X (3rd letter) → W (4th letter).
The number sequence follows the squares: $1^2 = 1$, $2^2 = 4$, $3^2 = 9$, $4^2 = 16$.
Final Answer: W16
Final Correct Option: (A) W16

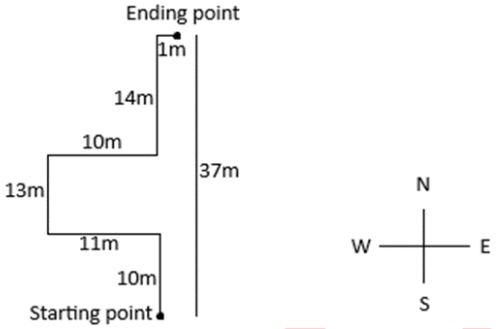
S82. Ans.(d)
Sol. • , **Chair**, and **Dining Table** are **distinct categories**, but all are **subsets of Furniture**.
- There is **no overlap among Bed, Chair, and Dining Table** because they are not types of each other.

Ideal Venn Diagram Structure:
- One large circle labeled **Furniture**
- Inside it, **three non-overlapping small circles** labeled **Bed**, **Chair**, and **Dining Table**

S83. Ans.(c)
Sol. Logic: words are arranged according to the last letter of the word from the right end.
Given -
Input: "Ocean Earth Below Stars Surface Dream"
last letter of the words respectively - n, h, w, s, e, m
'e' will be first which is already at right place.
Step 1: Surface Ocean Earth Below Stars Dream
next will be h (Earth) .
Step 2: Surface Earth Ocean Below Stars Dream
next will be m (Dream) .

Step 3: Surface Earth Dream Ocean Below Stars
next will be s (Stars) . and last will be 'w' (Below)
Step 4: Surface Earth Dream Ocean Stars Below
similarly,
Input:" Sky Up Gas High Down Die"
Step 1: Die Sky Up Gas High Down
Step 2: Die High Sky Up Gas Down
Step 3: Die High Down Sky Up Gas
Step 4: Die High Down Up Sky Gas
Step 5: Die High Down Up Gas Sky
Here last step is 5.

S84. Ans.(d)
Sol. Given:
Shyam walked 10 meters towards the north.
Then, he turned left and walked 11 meters.
He turned right and walked 13 meters.
He turned right again and walked for 10 m
He turned left and walked 14 meters.
then finally turned right and walked 1m
Logic:
The least possible diagram as follows:



From the above diagram, the distance between the starting point to the ending point is;
37 meters
Thus, correct option is (d).

S85. Ans.(c)
Sol. Given: 2 ÷ 70 × 2 – 30 + 30 = ?
OperationpreferencewiseSymbolBrackets[],,()Orders,
of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders,
ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−

Sign	+	×
interchange sign	−	÷

New equation: 2 × 70 ÷ 2 + 30 – 30 = ?
2 × 35 + 30– 30 = ?
70 + 30 – 30 = ?
100 – 30 = ?
? = 70
Thus, correct option is (c).

S86. Ans.(a)
Sol. Given:
A, B, C, D, E and F are of different heights.

Only A is shorter than B.
> > > > B > A
Only two people are taller than E.
> > E > > B > A
D is taller than F but shorter than C.
C > D > E > F > B > A
So, B is the second shortest person among them.
Thus, the correct answer is (a).

S87. Ans.(d)
Sol. Given: GH : DK :: ? :: QR : NU

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 - 3 = 3rd letter and 2nd letter + 3 = 4th letter
For, GH : DK
G - 3 = D, H + 3 = K
For, QR : NU
Q - 3 = N, R + 3 = U
Now, we check each options.
Option (a): SV:PX **(Not Follow)**
S - 3 = P, V + 3≠ = X
Option (b): KL:MO **(Not Follow)**
K - 3≠ = M, L + 3 = O
Option (c): FI:DK **(Not Follow)**
F - 3≠ = D, I + 3≠ = K
Option (d): XZ:UC **(Follow)**
X - 3 = U, Z + 3 = C
Thus, correct option is (d).

S88. Ans.(b)
Sol. From the first sentence: find the key → ak jo bk
From the second sentence: the train left → tu mt jo
Common word in both sentences is 'the'
Common code in both coded sentences is 'jo'
Hence, 'the' is coded as 'jo'.

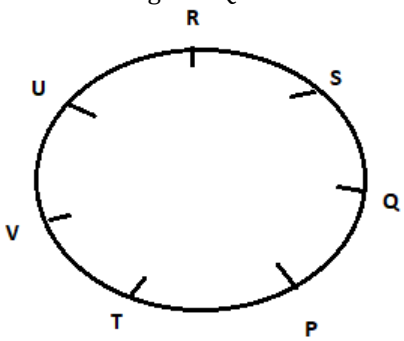
S89. Ans.(b)
Sol. Given: Pigeon : Peace :: White flag : ?
A **pigeon** is a symbol of **peace**.
So the relationship is:
Symbol : What it represents
Similarly,
White flag : ?
A **white flag** is a universal symbol of **surrender**.
Thus, correct option is (b).

S90. Ans.(c)
Sol. Logic: (1st number)^3 = 2nd number
Now, we check each options.

Option (a): 4 : 64 **(Follow)**
$(4)^3 = 64$
Option (b): 8 : 512 **(Follow)**
$(8)^3 = 512$
Option (c): 6 : 212 **(Not Follow)**
$(6)^3 \neq$? $= 212$
Option (d): 10 :1000 **(Follow)**
$(10)^3 = 1000$
Thus, correct option is (c).

S91. Ans.(d)
Sol. Given:
41 ÷ 19 + 448 × 4 − 26 = ?
Given +×
Interchange−÷
OperationpreferencewiseSymbolBrackets[],,()Orders,
of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders,
ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−
Now substitute:
41 × 19 − 448 ÷ 4 + 26 = ?
41 × 19 − 112 + 26 = ?
779 − 112 + 26 = ?
805 − 112 = ?
? = 693
Thus, correct option is (d).

S92. Ans.(d)
Sol. Given -P, Q, R, S, T, U and V are sitting around a circular table facing the centre. Only two people sit between T and S when counted from the right of T. Only three people sit between V and Q when counted from the right of Q. S sits to the immediate right of Q. U sits to the immediate right of R.



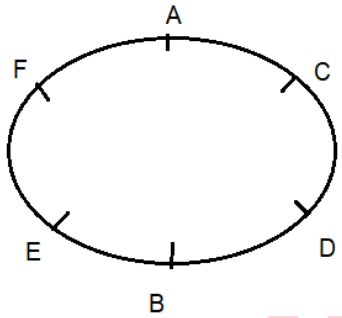
Two people (S, R) people sit between Q and U when counted from the right of Q.
Option D is correct.

S93. Ans.(b)
Sol. Given:
Prince ranked 24th from the top and 39th from the bottom in his class.
Formula Used:
Total students = Rank from top + Rank from bottom – 1
= 24 + 39 - 1
= 63 - 1
= **62**
So, **62** students are there in his class.
Thus, correct option is (b).

S94. Ans.(c)
Sol. Given: 1. Village 2. Nation 3. District 4. Taluk 5. State
1. Village – smallest unit
4. Taluk (or Tehsil) – group of villages
3. District – consists of multiple taluks
5. State – made of several districts
2. Nation – comprises all the states
Village → Taluk → District → State → Nation
So, the correct order is: **1, 4, 3, 5, 2**
Thus, correct optuion is (c).

S95. Ans.(a)
Sol. Now, we check each options.
Option (a): Auditorium – Chair: Achairis not a part of an auditorium itself, but anobject placed insideit.
Option (b): Petal – Flower: A petal is a part of a flower.
Option (c): Finger – Hand: A finger is a part of a hand.
Option (d): Brick – Wall: A brick is a part of a wall.
The relationship is not part-to-whole, but more like location–object.
So, the odd one out is: **Auditorium – Chair**, because it does not show a part-to-whole relationship like the others.
Thus, correct option is (a).

S96. Ans.(d)
Sol. Given - A, B, C, D, E and F are sitting in a circle facing the centre. 'D' is on the immediate right of 'B' and 'B' is not the immediate neighbor of 'F'. 'C' is between 'A' and 'D'.



A and E are the neighbours of 'F'.

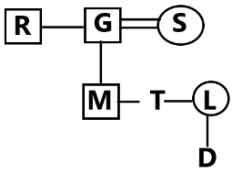
S97. Ans.(c)
Sol. From the given options -
Logic: the second number is divisible by the first:
30 ÷ 5 = 6
110 ÷ 10 = 11
70 ÷ 8 = **8.75**
12 ÷ 3 = 4
Option (C): 8 : 70 is the odd one out because 70 is not divisible by 8, while in all other pairs, the second number is divisible by the first.
Correct answer is (c) **8 : 70**

S98. Ans.(c)
Sol.

A of				
Symbols	+	&	@	=
Relations	Daughter	Brother	Mother	Father
B				

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

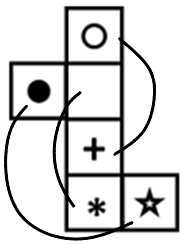
If R & G = M & T + S @ L @ D,



From the diagram only option (c) T is the daughter of R. is wrong relation.
Thus, correct option is (c).

S99. Ans.(b)
Sol. Given: (left) WRD RUV PCR POM DOZ (right)
Each letter → previous letter
WRD
W → V, R → Q, D → C
WRD → VQC
Vowels = 0
RUV
R → Q, U → T, V → U
RUV → QTU
Vowels = 1
PCR
P → O, C → B, R → Q
PCR → OBQ
Vowels = 1
POM
P → O, O → N, M → L
POM → ONL
Vowels = 1
DOZ
D → C, O → N, Z → Y
DOZ → CNY
Vowels = 0
All have 0 or 1 vowels. None have exactly 2 vowels
So, **0** newly formed words will have only two vowels.
Thus, correct option is (b).

S100. Ans.(d)
Sol.



So, the opposite of **O** is **+**.
Thus, correct option is (d).