RRB NTPC (Graduate) CBT-I Official Paper (Held On: 16 Mar, 2026 Shift 3) (Previous Year Paper)

RRB NTPC • 2026 • 100 questions • 90 minutes • Answer key and solutions

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/rrb-ntpc/rrb-ntpc-graduate-cbt-i-official-paper-held-on-16-mar-2026-shift…

Scan the QR code or click the link to open it.

Q1. A woman travelled at a speed of 20 m/min for 90 min, and at a speed of 55 m/min for 60 min. Her average speed (in m/min) for the entire journey is:

(a) 34
(b) 27
(c) 40
(d) 38

Q2. The Lilatilakam, a 14th-century treatise, played a significant role in establishing the classical status of which Indian language through its grammatical and poetic principles?

(a) Kannada
(b) Tamil
(c) Malayalam
(d) Odia

Q3. Seven people B, C, O, P, Q, R and S are sitting around a circular table facing the center of the table. B sits second to the right of S. Q sits third to the left of S. Only two people sit between P and R when counted from the right of R. C is an immediate neighbor of P. Who sits to the immediate left and right of O, respectively?

(a) S and P
(b) S and B
(c) C and S
(d) C and B

Q4. Refer to the following letter, number, symbol series and answer the question.

(Left) 5 5 © J W 1 L £ D Z 6 6 C 2 # R 2 C 6 % Y 6 (Right)

If all the numbers are dropped from the series, which of the following will be fifth from the left?

(a) L
(b) D
(c) W
(d) £

Q5. In a certain code language, ‘APES’ is coded as ‘4583’ and ‘PEAT’ is coded as ‘6438’. What is the code for ‘S’ in that language?

(a) 8
(b) 5
(c) 4
(d) 6

Q6. If (a + 1overa) = 4, then what is the value of (a^5 + 1overa^5)?

(a) 709
(b) 776
(c) 724
(d) 770

Q7. Which of the following scientists gave the concept of atomic mass?

(a) Ernest Rutherford
(b) J.J. Thomson
(c) John Dalton
(d) Niels Bohr

Q8. Which Himalayan region has greater altitudinal variations?

(a) Southern Himalayan region
(b) Northern Himalayan region
(c) Western Himalayan region
(d) Eastern Himalayan region

Q9. Based on the alphabetical order, three of the following four are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter cluster.)

(a) OTP
(b) KPL
(c) INK
(d) MRN

Q10. A student wants to locate a word inside a PDF. Which shortcut helps?

(a) Ctrl + V
(b) Ctrl + F
(c) Ctrl + Tab
(d) Ctrl + C

Q11. Refer to the following number and symbol series and answer the question that follows. All numbers are single-digit numbers only.

(Left) 6 8 @ ! 4 5 ^ 5 * 9 & 4 $ # 3 @ 1 + ? 8 (Right)

If all the symbols are dropped from the series, which of the following will be seventh from the right?

(a) 5
(b) 6
(c) 1
(d) 9

Q12. Cheriyal scroll painting belongs to which State of India?

(a) Andhra Pradesh
(b) Karnataka
(c) Tamil Nadu
(d) Telangana

Q13. Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operations on the second number result in the third number and so on. Which of the given options follows the same set of operations as in question?

(NOTE – A two/three-digit number cannot be broken into individual digits for operations, e.g., if 37 is followed by 10, the operation cannot be 3+7 as a two-digit number cannot be broken into individual digits.)

180 – 145 – 125 – 100; 145 – 110 – 90 – 65

(a) 155 – 130 – 110 – 75
(b) 165 – 130 – 110 – 85
(c) 115 – 80 – 60 – 45
(d) 130 – 95 – 70 – 50

YourMockTest.com — Free Study Material

Q14. Which of the given letter-number clusters will replace the question mark (?) in the following series to make it logically complete?

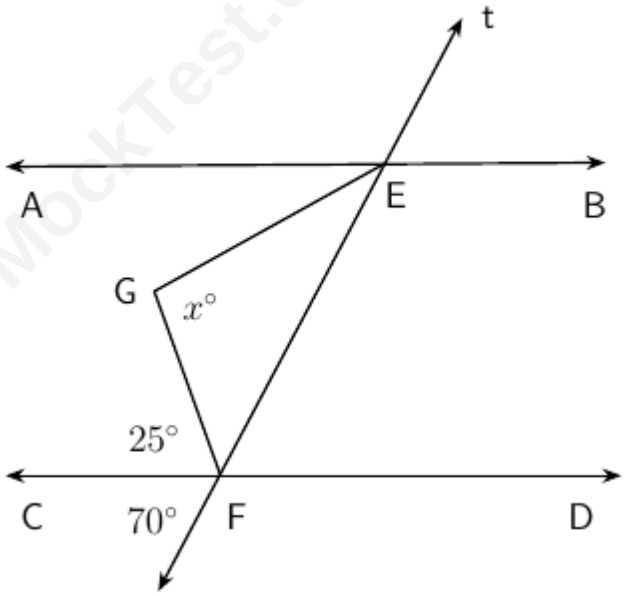
CLW 31 LUF 33 UDO 35 DMX 37 ?

(a) NUR 39
(b) LST 39
(c) MVG 39
(d) XSH 38

Q15. If 30% of 80- 4/7 × cbrt729 × √49 = y, then the value of y is

(a) -8
(b) -7
(c) -12
(d) -3

Q16. In the figure given, parallel lines, AB and CD, are intercepted by a transversal t at E and F, respectively. If EG is the angle bisector of angle AEF, find angle EGF.



(a) 35°
(b) 60°
(c) 85°
(d) 90°

Q17. The state of matter where particles are far apart and move randomly and quickly is the:

(a) Plasma state
(b) Solid state
(c) Liquid state
(d) Gaseous state

Q18. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements.

Statements:

Some hens are turkeys. Some hens are ostriches. Some turkeys are eagles.

Conclusions:

(I) Some hens are eagles.(II) Some turkeys are ostriches.

(a) Only conclusion (I) follows.
(b) Only conclusion (II) follows.
(c) Neither conclusion (I) nor (II) follows.

YourMockTest.com — Free Study Material

(d) Both conclusions (I) and (II) follow.

Q19. In which of the following states is the Baishagu festival celebrated by the Boro Kacharis in the month of April?

(a) Assam
(b) Bihar
(c) Karnataka
(d) Odisha

Q20. What was the primary objective of the 'Blue Skies 2025' campaign launched in August 2025?

(a) Promote solar energy
(b) Reduce urban air pollution
(c) Increase forest cover
(d) Conserve wetlands

Q21. Mr. ABCD wants to become a member of the Legislative Assembly. What is the minimum age prescribed in the Constitution of India so that he becomes a member of the Legislative Assembly?

(a) No Minimum age is prescribed in the Constitution
(b) 21 years
(c) 25 years
(d) 35 years

Q22. The price of each article of type P, Q, and R is Rs. 280, Rs. 180 and Rs. 115, respectively. Tejas buys articles of each type in the ratio 4 : 2 : 5 for Rs. 6,165. How many articles of type Q did he purchase?

(a) 14
(b) 3
(c) 6
(d) 12

Q23. Which island country, along with Sri Lanka, is identified as India’s southern neighbour across the Indian Ocean?

(a) Thailand
(b) Indonesia
(c) Maldives
(d) Bhutan

Q24. During a sale 50% of the goods are sold at 16% profit, 40% of the remaining goods are sold at 35% profit and the still remaining goods are sold at a loss of 25%. If there is an overall profit of x%, then what is the value of x?

(a) 8
(b) 9
(c) 6
(d) 7.5

Q25. What should come in place of ‘?’ in the given series?

33 40 54 75 103 ?

(a) 138
(b) 140
(c) 142
(d) 145

Q26. The census in India is conducted once in ten years under the legal authority of the Census Act _____.

(a) 1948
(b) 2010
(c) 1947
(d) 1872

YourMockTest.com — Free Study Material

Q27. In a certain code language, 'TIER' is coded as '2735' and 'TIME' is coded as '3475'. What is the code for 'M' in the given code language?

(a) 4
(b) 7
(c) 3
(d) 5

Q28. In December 2025, India and Russia signed the RELOS agreement. What is the primary purpose of this agreement?

(a) To facilitate reciprocal military logistics support between India and Russia
(b) To establish joint agricultural research centers
(c) To enhance educational exchange programs between India and Russia
(d) To promote civilian technology sharing between India and Russia

Q29. Find the average of 312, 126, 100 and 99.

(a) 157.25
(b) 158.25
(c) 156.25
(d) 159.25

Q30. A typist takes 40 minutes to type 2 pages. How long (in minutes) will he take to type 91 pages?

(a) 1830
(b) 1825
(c) 1810
(d) 1820

Q31. Select the triad which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern.

BALD-BADL-ABLD

EPIC-EPCI-PEIC

(a) FIRE-IREF-FRIE
(b) COME-COEM-OEMC
(c) HIKE-HIEK-IHKE
(d) PART-RTPA-APTR

Q32. Madhu and Madhuri start a business by investing in the ratio 31 : 34. If total profit is Rs. 44,850, then what is the difference between the shares of profit (in Rs.) of Madhu and Madhuri?

(a) Rs. 570
(b) Rs. 2,070
(c) Rs. 3,570
(d) Rs. 1,570

Q33. In 2025, the Supreme Court of India (SC) in the case State of Tamil Nadu v. Governor of Tamil Nadu ruled that a State Governor cannot exercise which of the following over a bill duly passed by the State Legislature?

(a) Veto only on financial bills
(b) Pocket Veto
(c) Conditional assent
(d) Line-item veto

Q34. Which policy trade-off limited balanced sectoral growth in India during 1951–1991?

(a) Agriculture vs. industry
(b) Services vs. manufacturing
(c) Imports vs. exports
(d) Private vs. public sector

YourMockTest.com — Free Study Material

Q35. In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and decide the appropriate answer.

Q. Five students – Alok, Bharti, Celine, Darpan, and Ema – obtained different marks in an examination.

Who scored the third highest marks?

(I) Darpan scored more than Alok and Bharti but less than Celine.

(II) Ema scored more than Darpan but less than Celine.

(a) Both statements I and II together are NOT sufficient to answer the question
(b) Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question
(c) Data in Statement II alone is sufficient to answer the question while data in Statement I is not
(d) Data in Statement I alone is sufficient to answer the question while data in Statement II is not

Q36. The F2 generation of a monohybrid cross typically shows which phenotypic ratio?

(a) 2:1
(b) 3:1
(c) 1:1
(d) 1: 2: 1

Q37. P, Q, R, S, T, U and V sit around a circular table facing the centre.

V sits to the immediate left of T. U sits to the immediate left of R. R sits second to the left of S. Q sits third to the left of T.

Who sits 2^(nd) to the right of S?

(a) U
(b) R
(c) P
(d) T

Q38. X, Y, Z, S, T and U live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on till the topmost floor is numbered 6. S lives on floor number 5. X lives on a floor above S. Only U lives below Y. Z lives on an even numbered floor. How many people live below Z?

(a) One
(b) Three
(c) Two
(d) Four

Q39. A shopkeeper fixes the marked price of an item 180% above its cost price. What percentage of discount on marked price should be allowed to gain 12%?

(a) 62%
(b) 60%
(c) 58%
(d) 57%

Q40. Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ?

: MWE :: KUC : %

(a) = BLT % = VCN
(b) = BLT % = VFM
(c) = KLT % = VFN
(d) = BLT % = VFN

Q41. Who played the most significant military role in leading Nana Sahib's forces during the Revolt of 1857 at Kanpur?

(a) Bahadur Shah, who appointed Nana Sahib as his Governor
(b) Baji Rao II, the last Peshwa and father of Nana Sahib
(c) Azimullah, who was an expert in political propaganda

YourMockTest.com — Free Study Material

(d) Tantia Tope, known for his guerrilla warfare and patriotic resistance

Q42. Find the median from the following data.

Age in years	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of patients	11	18	28	15	22	31	13

(a) 69
(b) 58
(c) 60
(d) 55

Q43. Article _____ describes the procedure for joint sitting of both Houses of the Parliament in certain cases.
(a) Article 115
(b) Article 104
(c) Article 108
(d) Article 94

Q44. In a certain code language,
A + B means 'A is the mother of B'
A - B means 'A is the brother of B'
A × B means 'A is the husband of B'
A ÷ B means 'A is the daughter of B'
Based on the above, how is H related to R if 'H - V ÷ K × T + R'?
(a) Father's brother
(b) Mother's brother
(c) Brother
(d) Sister's son

Q45. In 2025, the 2nd WHO Global Summit on Traditional Medicine officially began on 17 December in which city?
(a) Bangkok
(b) New Delhi
(c) Beijing
(d) Geneva

Q46. Who jointly led the first ever no-tax campaign against the British Government in Bengal during the 1838-1848 Farazi Movement?
(a) Titu Mir and Syed Ahmad Barelvi
(b) Shariatullah Khan and Dadu Mian
(c) Kunwar Singh and Amar Singh
(d) Sidhu Murmu and Kanhu Murmu

Q47. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
All gardens are forests. All forests are meadows. No garden is a park.
Conclusions:
(I) No forest is a park.
(II) No meadow is a park.
(a) Only conclusion (I) follows
(b) Both conclusions (I) and (II) follow
(c) Neither conclusion (I) nor (II) follows
(d) Only conclusion (II) follows

YourMockTest.com — Free Study Material

Q48. Simplify 51/6 ÷ 6.2 × 0.75 ÷ (1/5 × 40).

(a) 2/17
(b) 9/19
(c) 7/33
(d) 5/64

Q49. Which Ministry was primarily responsible for implementing online child safety initiatives as of December 2025?

(a) Ministry of Home Affairs
(b) Ministry of Social Justice
(c) Ministry of Education
(d) Ministry of Electronics and Information Technology (MeitY)

Q50. In a certain code language,

E + F means 'E is the brother of F',

E – F means 'E is the father of F',

E x F means 'E is the husband of F' and

E ÷ F means 'E is the mother of F'.

How is P related to T if 'P + Q – R x S ÷ T'?

(a) Brother
(b) Father's Father's Brother
(c) Father
(d) Father's Brother

Q51. A shopkeeper purchased 62 dozens of articles at the rate of Rs. 100 per dozen. He sold each one of them at the rate of Rs. 75. What percentage profit did he make?

(a) 798%
(b) 801%
(c) 800%
(d) 797%

Q52. Find the mode of the following frequency distribution. (Round off the answer to two decimal places.)

Class	0-10	10-20	20-30	30-40	40-50
Frequency	5	8	12	20	10

(a) 33.35
(b) 34.44
(c) 32.25
(d) 31.51

Q53. The total surface area of a solid cube each side of which is 84 cm long is:

(a) 42359 cm^2
(b) 42292 cm^2
(c) 42336 cm^2
(d) 42365 cm^2

Q54. 52 is related to 144 following a certain logic. Following the same logic, 81 is related to 173. To which of the following is 63 related, following the same logic?

(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) 165
(b) 145
(c) 175
(d) 155

YourMockTest.com — Free Study Material

Q55. Find the length of the ladder if the angle of elevation of the ladder against a wall is 60° and the foot of the ladder is 11.5 m away from the wall.

(a) 23 m

(b) $23\sqrt{3}$ cm

(c) $\frac{23\sqrt{3}}{2}$ m

(d) 11.5 m

Q56. Each of T, U, V, W, X, Y and Z has an engagement on a different day of a week starting from Monday and ending on Sunday of the same week. V has engagement on the third day of the week. Only one person has engagement after Y. Only three people have engagement between V and X. Only one person has engagement between W and Z. T has engagement immediately after Z. How many people have engagement between U and T?

(a) Three

(b) One

(c) Four

(d) Two

Q57. Which characteristic of a computer system enables it to perform extremely complex calculations within seconds?

(a) Versatility

(b) Accuracy

(c) Speed

(d) Automation

Q58. Under which Article does the Supreme Court have the power of judicial review?

(a) Article 30

(b) Article 124

(c) Article 32

(d) Article 72

Q59. At what rate per annum will a sum of money become five times itself in 5 years under simple interest?

(a) 78%

(b) 82%

(c) 160%

(d) 80%

Q60. Which of the following is NOT regarded as an advantage of the LPG reforms in India?

(a) Boost in international partnerships

(b) Rise in trade restrictions

(c) Adoption of advanced technologies

(d) Expansion of the private sector

YourMockTest.com — Free Study Material

Q61. Which of the following subjects are included in the Union List under the Seventh Schedule of the Indian Constitution?

(a) Police, public health, and agriculture
(b) Education, forests, and marriage
(c) Local government, markets, and fairs
(d) Defence, foreign affairs, and citizenship

Q62. If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '−', then what will come in place of the question mark (?) in the following equation?

9 B 4 C 6 D 45 A 5 = ?

(a) 33
(b) 32
(c) 31
(d) 34

Q63. If 160% of 75% of A is equal to two times the value of 150% of B, then A is more/less than B by how much percentage?

(a) 60%, less
(b) 150%, less
(c) 150%, more
(d) 60%, more

Q64. Which of the following continents is NOT crossed by the Equator?

(a) Africa
(b) South America
(c) Europe
(d) Asia

Q65. 100 men have provisions for 27 days. If 55 men have left, for how many days the same provisions would last for the remaining men?

(a) 62
(b) 60
(c) 64
(d) 58

Q66. Which court is considered the highest judicial authority in a district?

(a) District Court
(b) Family Court
(c) High Court
(d) Munsif Court

Q67. Logan starts from Point A and drives 18 km towards west. He then takes a left turn, drives 15 km, turns right and drives 12 km. He then takes a right turn and drives 15 km. He takes a final right turn, drives 5 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90-degree turns only, unless specified.)

(a) 18 km towards south
(b) 25 km towards east
(c) 5 km towards north
(d) 15 km towards west

Q68. Three friends travel along three consecutive segments: from P to Q, Q to R, and R to S. Their speeds on these segments are 48 km/h, 72 km/h, and 96 km/h, respectively. The distances of the three segments are in the ratio 2 : 3 : 1, and the total distance from P to S is 480 km. Calculate the average speed for the entire journey.

(a) 65 km/h
(b) 58 km/h
(c) 68 km/h

YourMockTest.com — Free Study Material

(d) 64 km/h

Q69. Before each general election to the House of the People or to a State Legislative Assembly, the President may appoint Regional Commissioners after:

(a) consultation with the Chief Justice of India
(b) consultation with the Election Commission
(c) consultation with the Prime Minister
(d) consultation with the Speaker of the Lok Sabha

Q70. Three positive integers, A, B, and C, are such that the least common multiple of A and B is 24, the least common multiple of B and C is 36, and the least common multiple of C and A is 72. If the numbers are taken to be as small as possible, the value of A + B + C is:

(a) 29
(b) 27
(c) 31
(d) 25

Q71. DIME is related to HNIZ in a certain way based on the English alphabetical order. In the same way, LSEU is related to PXAP. To which of the following is TCWK related, following the same logic?

(a) WIRG
(b) VHSD
(c) XHSF
(d) YGTE

Q72. Who wrote the introductory essay to Sarojini Naidu's 1905 poetry collection The Golden Threshold?

(a) W. B. Yeats
(b) Arthur Symons
(c) Edmond Gosse
(d) Rabindranath Tagore

Q73. According to the 2025 Financial Tracking Services report by the United Nations Office for the Coordination of Humanitarian Affairs, which two contributors ranked higher than UAE in global humanitarian aid?

(a) Morocco and Denmark
(b) United States and European Union
(c) India and United Kingdom
(d) China and Japan

Q74. If 45% of 20 - 4over6 × cbrt729 × √36 = y, then find the value of y is

(a) -21
(b) -30
(c) -27
(d) -35

Q75. If 4 : 28 :: 4.1 : x and 4 : 32 :: 3 : y, then what is the ratio of x to y?

(a) 288 : 238
(b) 291 : 250
(c) 287 : 240
(d) 285 : 241

Q76. AB is the diameter of a circle with centre P. C and D are two points on the circle on either side of AB, such that angle CAB = 48º and angle ABD = 55º What is the difference between the measures of angle CBD and angle CAD?

(a) 14º
(b) 18º
(c) 11º
(d) 8º

YourMockTest.com — Free Study Material

Q77. Shan has Rs. 1407 with him. He divides this amount between his two sons, Piyush and Manoj, and asks them to invest their respective shares at a compound interest rate of 10% per annum, compounded annually. It is observed that Piyush's investment amounts to the same value after 18 years as Manoj's investment does after 19 years. How much (in Rs.) did Shan give to Manoj?

(a) 520
(b) 737
(c) 837
(d) 670

Q78. Which computer application is mainly used for booking railway tickets and flight reservations?

(a) Banking
(b) Education
(c) Reservation System
(d) Communication

Q79. Which of the given letter-number clusters will replace the question mark (?) in the following series to make it logically complete?

JHF 3 RPN 5 ZXV 8 HFD 12 ?

(a) BJP 15
(b) SYV 17
(c) KDU 19
(d) PNL 17

Q80. Who composed the 'Prayag Prashasti' (Allahabad Pillar Inscription), detailing the conquests of Samudragupta?

(a) Vishakhadatta
(b) Kalidasa
(c) Banabhatta
(d) Harisena

Q81. If a is a positive integer such that the equations $(a^2 - 7a)x^2 + x + 12 = 0$ and $240x^2 + 8x + (a^2 - 4) = 0$ both have roots common, then the value of $(a + 2)(a + 3)/(a - 4)$ is:

(a) 26
(b) 30
(c) 18
(d) 42

Q82. 18 is related to 59 following a certain logic. Following the same logic, 27 is related to 86. To which of the following is 37 related, following the same logic?

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. 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) 116
(b) 101
(c) 123
(d) 132

Q83. In December 2025, the Punjab government directed strict enforcement of which policy to safeguard schoolchildren during dense winter fog (mandatory visibility measures, reduced speed, reflectors, headlights and fog lights)?

(a) Safe School Vehicle Policy
(b) National Road Safety Policy
(c) Motor Vehicles Safety Compliance Programme
(d) National School Safety and Security Guidelines

YourMockTest.com — Free Study Material

Q84. What should come in place of '?' in the given series?

45 65 81 93 101 ?

(a) 105
(b) 106
(c) 104
(d) 103

Q85. Six years hence, a father's age will be 3 times the age of his son. Six years ago, the father was 7 times as old as his son. Find the present ages (in years) of the father and son.

(a) 48 and 12
(b) 46 and 10
(c) 50 and 14
(d) 52 and 16

Q86. According to the March 1997 agreement between the RBI and the Central Government, which practice was discontinued with effect from April 1, 1997?

(a) Practice of issuing ad hoc Treasury Bills
(b) Issuance of 91-day Treasury Bills
(c) Market borrowing through dated securities
(d) Automatic monetisation of fiscal deficit

Q87. In an election between two candidates, 80% of the registered voters cast their vote and 10% of the votes polled were found invalid. Winning candidate got 89% of the valid votes and won the election by a margin of 351 votes. How many voters were registered?

(a) 675
(b) 600
(c) 650
(d) 625

Q88. The internal surface area (in cm^2) of an open (at the top) cuboidal box whose internal length, breadth and height are 8 cm, 17 cm and 22 cm, respectively, is:

(a) 1238
(b) 1189
(c) 1215
(d) 1236

Q89. According to the Prayaga Prashasti, Samudragupta is compared to which god associated with wealth?

(a) Yama
(b) Varuna
(c) Kubera
(d) Indra

Q90. P, Q, R, S, Y, and Z 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, which is numbered 6.

Only three people live between Y and Z. Only P lives above Y. R lives on an odd-numbered floor. Q lives immediately below Y.

Who lives on floor number 2?

(a) S
(b) P
(c) Y
(d) Q

YourMockTest.com — Free Study Material

Q91. Which of the following will be the pressure of water at the base of a lake of height 20 metres?

(g = 9.8m/s² and Density of water = 1 kg/litre)

(a) 19,600 Pa
(b) 196 Pa
(c) 1,96,000 Pa
(d) 1960 Pa

Q92. Which organization was the implementing agency for the National Agricultural Insurance Scheme (NAIS) launched in 1999?

(a) Food Corporation of India (FCI)
(b) National Bank for Agriculture and Rural Development (NABARD)
(c) Agriculture Insurance Company of India Ltd. (AIC)
(d) Indian Council of Agricultural Research (ICAR)

Q93. Who among the following is known for his collaboration with international artists and is/was a renowned tabla maestro?

(a) Zakir Hussain
(b) EM Subramaniam
(c) Hari Prasad Chaurasia
(d) Sajjad Hussain

Q94. Which ISRO centre will host the newly approved Third Launch Pad by Union cabinet in December 2025?

(a) National Remote Sensing Centre
(b) Space Applications Centre
(c) Vikram Sarabhai Space Centre
(d) Satish Dhawan Space Centre

Q95. Preparation of report cards, maintaining student records, and creating question papers are actions that are mainly related to which area of computer application?

(a) Space research
(b) Education administration
(c) Business marketing
(d) Automobile control

Q96. Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group?

(Note: The odd man out is not based on the number of consonants/vowels or their position in the letter-cluster.)

(a) RV−WA
(b) PT−UY
(c) EI−IP
(d) GK−LP

Q97. Each of the digits in the number 52697148 is arranged in descending order from left to right. What will be the product of the digits which are third from the left and second from the right in the number thus formed?

(a) 14
(b) 28
(c) 16
(d) 12

Q98. There are 72 members in group A, 12 members in group B and 87 members in group C. All the members of these groups went to a restaurant. The average amounts spent on each member of groups A, B and C are Rs. 404, Rs. 316 and Rs. 424, respectively. The overall average amount (in Rs.) spent per member is:

(a) 409
(b) 404
(c) 408

YourMockTest.com — Free Study Material

(d) 412

Q99. Which of the following states ranks number one in the production of natural rubber in India in 2023-24?

(a) Tamil Nadu
(b) Karnataka
(c) Kerala
(d) Andhra Pradesh

Q100. Refer to the following letter, number, symbol series and answer the question. (All numbers are single digit numbers only.)

(Left) R % C * E 3 K 6 $ 7 D @ 2 T Y # 4 5 G & S (Right)

If all the letters are dropped from the series, which of the following will be fourth from the right?

(a) #
(b) @
(c) 4
(d) 2

ANSWER KEY

1	a	2	c	3	b	4	d	5	b	6	c	7	c	8	d	9	c	10	b
11	a	12	d	13	b	14	c	15	c	16	b	17	d	18	c	19	a	20	b
21	c	22	c	23	c	24	d	25	a	26	a	27	a	28	a	29	d	30	d
31	c	32	b	33	b	34	a	35	b	36	b	37	d	38	b	39	b	40	d
41	d	42	b	43	c	44	c	45	b	46	b	47	c	48	d	49	d	50	b
51	c	52	b	53	c	54	d	55	a	56	a	57	c	58	c	59	d	60	b
61	d	62	a	63	c	64	c	65	b	66	a	67	b	68	d	69	b	70	a
71	c	72	b	73	b	74	c	75	c	76	a	77	d	78	c	79	d	80	d
81	a	82	a	83	a	84	a	85	a	86	a	87	d	88	d	89	c	90	a
91	c	92	c	93	a	94	d	95	b	96	c	97	a	98	c	99	c	100	a

SOLUTIONS

Q1. Answer: (a) 34

Shortcut Trick
Time ratio = 90 : 60 = 3 : 2
=> Average speed = (20 × 3 + 55 × 2) ÷ (3 + 2)
=> = (60 + 110) ÷ 5 = 170 ÷ 5 = 34
Therefore Answer = 34 m/min
Alternate Method
Given:
=> Speed1 = 20 m/min, Time1 = 90 min
=> Speed2 = 55 m/min, Time2 = 60 min
Formula:
=> Average Speed = Total Distance ÷ Total Time
Calculations:
=> Distance1 = 20 × 90 = 1800 m
=> Distance2 = 55 × 60 = 3300 m
=> Total Distance = 1800 + 3300 = 5100 m
=> Total Time = 90 + 60 = 150 min
=> Average Speed = 5100 ÷ 150 = 34 m/min

Final Answer: 34 m/min

Additional Information

1. Average Speed (Different Times): When time is different, use weighted average → (v1t1 + v2t2) ÷ (t1 + t2)

2. Average Speed (Equal Distances): Use harmonic mean → 2v1v2 ÷ (v1 + v2)

3. Shortcut Concept: If time ratio is given, multiply speeds with time ratio directly

Q2. Answer: (c) Malayalam

The correct answer is Malayalam.

Key Points

• Lilatilakam is a 14th-century treatise written in Sanskrit that deals with the grammar and poetics of Mani-pravalam, a literary style used in medieval Kerala.

• The text is considered the earliest known grammatical work on the Malayalam language, providing crucial evidence for its evolution as a distinct identity from Tamil and Sanskrit.

• It defines Mani-pravalam as the "union of Manipravalam (Ruby and Coral)," where Mani represents Sanskrit and Pravalam represents the regional language, Malayalam.

• The treatise consists of eight Silpas (chapters) covering various aspects of linguistic structure, including parts of speech, syntax, and poetic figures of speech.

• By standardizing grammatical principles and poetic rules, Lilatilakam laid the foundation for the recognition of Malayalam as a classical and sophisticated literary language.

Additional Information

• Classical Languages of India:

• The Government of India officially grants "Classical Status" to languages that have high antiquity, a rich heritage of ancient literature, and an original literary tradition.

• Tamil was the first language to be declared a classical language in 2004, followed by Sanskrit in 2005.

• Kannada and Telugu were added to the list in 2008.

• Malayalam was officially recognized as a classical language in 2013, largely due to its historical roots evidenced in texts like Lilatilakam and its Chera dynasty connections.

• Odia became the sixth classical language in 2014. In 2024, the Union Cabinet approved five more: Marathi, Pali, Prakrit, Assamese, and Bengali.

• Kannada: An ancient Dravidian language primarily spoken in Karnataka, with its earliest literature dating back to the Kavirajamarga in the 9th century.

• Tamil: One of the oldest surviving classical languages, with the Sangam literature dating back to 300 BCE to 300 CE.

• Odia: Predominantly spoken in Odisha, it has a rich history of inscriptions and literature like the Mahabharata by Sarala Das in the 15th century.

Important Points

• The term Mani-pravalam literally translates to diamonds and corals, symbolizing the aesthetic blending of two different languages to create a unique literary form.

• Lilatilakam is historically significant because it identifies the Malayalam of the Chera kingdom (specifically the Kerala region) as a language independent of Tamil by the 14th century.

• The Malayalam alphabet is largely derived from the Grantha script, which was used for writing Sanskrit in South India.

• The establishment of Malayalam as a classical language requires that its early texts, like the Ramacharitam and Lilatilakam, demonstrate a tradition spanning over 1500 to 2000 years.

Q3. Answer: (b) S and B

Given:

B, C, O, P, Q, R and S are sitting around a circular table facing the centre.

B sits second to the right of S.

Q sits third to the left of S.

Only two people sit between P and R when counted from the right of R.

C is an immediate neighbor of P.

Now, immediate neighbours of O are:

Left → S

Right → B

Hence, the correct answer is Option 2.

Q4. Answer: (d) £

Given: (Left) 5 5 © J W 1 L £ D Z 6 6 C 2 # R 2 C 6 % Y 6 (Right)

Now, Remove all the numbers from the series.

Remaining series: © J W L £ D Z C # R C % Y

Now, counting from the left: © J W L £ D Z C # R C % Y

So, the fifth element from the left is £

Hence, the correct answer is Option 4.

Q5. Answer: (b) 5

The logic followed here is:

Given:

APES → 4583

PEAT → 6438

So, S → 5

Hence, the correct answer is Option 2.

Q6. Answer: (c) 724

Shortcut Trick

Use identity pattern:

a + 1/a = 4

=> $a^2 + 1/a^2 = 4^2 - 2 = 16 - 2 = 14$

=> $a^3 + 1/a^3 = 4 \times 14 - 4 = 56 - 4 = 52$

=> a^5 + 1/a^5 = $(a^2 + 1/a^2)(a^3 + 1/a^3) - (a + 1/a)$

=> $= (14 \times 52) - 4 = 728 - 4 = 724$

Therefore Answer = 724

Alternate Method

Given:

=> a + 1/a = 4

Formula:

=> $a^n + 1/a^n$ formed using recurrence:

$a^n + 1/a^n = (a + 1/a)(a^{(n-1)} + 1/a^{(n-1)}) - (a^{(n-2)} + 1/a^{(n-2)})$

Calculations:

=> $a^2 + 1/a^2 = 4 \times 4 - 2 = 16 - 2 = 14$

=> $a^3 + 1/a^3 = 4 \times 14 - 4 = 56 - 4 = 52$

=> a^4 + 1/a^4 = $4 \times 52 - 14 = 208 - 14 = 194$

=> a^5 + 1/a^5 = $4 \times 194 - 52 = 776 - 52 = 724$

Final Answer: 724

Additional Information

1. Basic Identity: $a^2 + 1/a^2 = (a + 1/a)^2 - 2$
2. Cubic Identity: $a^3 + 1/a^3 = (a + 1/a)^3 - 3(a + 1/a)$
3. Recurrence Relation: T_n = (a + 1/a)T_(n−1) − T_(n−2)
4. Exam Tip: Always build values stepwise instead of expanding high powers directly

Q7. Answer: (c) John Dalton

The correct answer is John Dalton.

Key Points

• John Dalton was an English chemist, physicist, and meteorologist who is best known for introducing the Atomic Theory into chemistry in the year 1808.

• He was the first scientist to provide a logical explanation for the atomic mass of elements. He proposed that every element consists of tiny, indivisible particles called atoms, and that all atoms of a specific element have a constant mass that distinguishes them from atoms of other elements.

• In his seminal work, "A New System of Chemical Philosophy", Dalton published the first table of relative atomic weights. He used Hydrogen as the standard reference point, assigning it an atomic mass of 1, because it was the lightest element known at the time.

YourMockTest.com — Free Study Material

• His theory stated that chemical reactions involve the rearrangement of atoms and that atoms combine in simple numerical ratios to form compounds. The concept of atomic mass was essential to explain the Law of Definite Proportions and the Law of Multiple Proportions.

Additional Information

• Ernest Rutherford (1871–1937):

• A New Zealand-born British physicist who is widely regarded as the father of nuclear physics.

• In 1911, he performed the famous Gold Foil Experiment (Alpha-particle scattering experiment), which led to the discovery of the atomic nucleus.

• He postulated that the mass of an atom is concentrated in a tiny, positively charged nucleus at the center, rather than being distributed throughout the atom.

• J.J. Thomson (1856–1940):

• An English physicist who revolutionized the understanding of atomic structure by discovering the electron in 1897.

• He used cathode ray tube experiments to show that atoms contain negatively charged subatomic particles.

• He proposed the "Plum Pudding Model" of the atom, where the atom was envisioned as a sphere of positive charge with electrons embedded in it like raisins in a pudding.

• Niels Bohr (1885–1962):

• A Danish physicist who proposed the Bohr Model of the atom in 1913.

• He improved upon Rutherford's model by suggesting that electrons move in fixed circular orbits or energy levels around the nucleus.

• His work incorporated quantum theory to explain how electrons can have stable orbits and why atoms emit specific spectra of light.

• Modern Concept of Atomic Mass:

• Today, the Unified Atomic Mass Unit (u) is used, which is defined as 1/12th of the mass of an unbound neutral atom of Carbon-12 at its nuclear and electronic ground state.

• The relative atomic mass is a dimensionless physical quantity, representing the ratio of the average mass of atoms of a chemical element in a given sample to the atomic mass constant.

Important Points

• While John Dalton correctly identified that atoms have mass, modern science has discovered isotopes—atoms of the same element that have different masses due to a different number of neutrons.

• The Atomic Number (number of protons), which defines the identity of an element, was a later discovery (by Henry Moseley in 1913), whereas Dalton focused strictly on atomic weight.

• Dalton's atomic theory provided the quantitative basis for chemistry, transforming it from a qualitative study into a precise mathematical science.

Q8. Answer: (d) Eastern Himalayan region

The correct answer is Eastern Himalayan region.

Key Points

• The Eastern Himalayan region is known for having greater altitudinal variations compared to the Western Himalayas. This is primarily because the mountains in the east rise very abruptly from the plains of Assam and West Bengal.

• Due to the sudden rise in height, the vertical zonation of vegetation is much more compressed and varied, leading to a rapid transition from tropical forests at the foothills to alpine meadows at higher elevations.

• The region includes the states of Arunachal Pradesh, Sikkim, and the hills of West Bengal, along with neighboring countries like Bhutan.

• The proximity of the Eastern Himalayas to the Bay of Bengal ensures that it receives heavy monsoon rainfall, which further enhances the biological and climatic diversity across different altitudes.

• In contrast, the Western Himalayas rise more gradually through a series of ranges like the Shiwaliks and Himachal, resulting in less dramatic altitudinal shifts over short horizontal distances.

Additional Information

• Western Himalayan Region:

• This region spans across Jammu and Kashmir, Ladakh, Himachal Pradesh, and Uttarakhand.

• It is characterized by a greater width, reaching up to 400 km in some areas, whereas the Eastern section is narrower (approx 150 km).

• The Western Himalayas are generally drier, with precipitation occurring mostly in the winter due to Western Disturbances.

• Vegetation and Biodiversity:

• The Eastern Himalayas are recognized as a Global Biodiversity Hotspot. It is home to unique species such as the Red Panda

YourMockTest.com – Free Study Material

and thousands of varieties of Orchids and Rhododendrons.

• The Western Himalayas are dominated by temperate coniferous forests featuring trees like Deodar, Blue Pine, and Silver Fir.

• Snowline Differences:

• The snowline (the altitude above which snow remains all year) is higher in the Eastern Himalayas (around 4,400 to 4,500 meters) because of higher humidity and lower latitudes.

• In the Western Himalayas, the snowline is lower, found at approximately 2,500 to 3,000 meters on the southern slopes.

Important Points

• Highest Peaks: The Eastern Himalayan region houses Kanchenjunga, the highest peak in India at 8,586 meters, located in Sikkim.

• Rainfall Data: The Eastern Himalayas receive more than 200 cm of annual rainfall, making them significantly more humid than the Western counterparts which receive roughly 100 cm or less in many parts.

• River Systems: The Brahmaputra is the primary river system of the Eastern Himalayas, while the Indus, Jhelum, Chenab, Ravi, and Beas originate or flow through the Western Himalayas.

• Geological Fact: The Himalayas are Young Fold Mountains, formed by the collision of the Indo-Australian Plate and the Eurasian Plate during the Cenozoic Era.

Q9. Answer: (c) INK

The logic followed here is based on the alphabetical position pattern:

Option 1: OTP

Option 2: KPL

Option 3: INK

Option 4: MRN

Thus, INK does not follow this pattern.

Hence, the odd one out is Option 3.

Q10. Answer: (b) Ctrl + F

The correct answer is Ctrl + F.

Key Points

• Ctrl + F: This keyboard shortcut is the standard command for the "Find" function across almost all operating systems and applications. When a student presses this in a PDF reader (like Adobe Acrobat or a web browser), a search bar appears, allowing them to type and locate specific words or phrases within the document. Hence, this option is correct.

• Ctrl + V: This shortcut is used for the Paste function. It allows a user to insert content that has been previously copied or cut into the current cursor location or selected area. It does not provide any search or location functionality. Hence, this option is incorrect.

• Ctrl + Tab: This is a navigation shortcut used to switch between different tabs within a single window, such as in Google Chrome, Mozilla Firefox, or Microsoft Edge. It moves the focus to the next tab to the right but does not search for text. Hence, this option is incorrect.

• Ctrl + C: This is the command for Copy. It places the selected text, image, or file into the system clipboard so it can be moved or duplicated elsewhere. While it helps in selecting text, it cannot search for words inside a PDF. Hence, this option is incorrect.

Additional Information

• PDF Navigation and Tools: Portable Document Format (PDF) files are widely used because they maintain formatting across different devices. To navigate them efficiently, shortcuts like Ctrl + G (Go to page) or Ctrl + Home (Go to start) are often used alongside Ctrl + F.

• Cross-Platform Consistency: Keyboard shortcuts are designed for efficiency and ergonomics. In macOS, the equivalent of the Control (Ctrl) key is the Command (Cmd) key. Therefore, to find a word on a Mac, a user would press Cmd + F.

• Advanced Search Features: Most PDF readers provide advanced "Find" options such as Case Sensitivity (matching capital letters exactly), Whole Words Only (to avoid finding parts of larger words), and Find Previous/Next using Enter or Shift + Enter.

• History of Shortcuts: Many modern shortcuts were popularized by Xerox PARC and later adopted by Apple and Microsoft in the 1980s. The "F" in Ctrl + F stands for "Find", making it a mnemonic shortcut that is easy for users to remember.

• Browser Integration: Since many students open PDFs directly in web browsers, Ctrl + F works identically in browsers like Chrome and Safari to highlight every instance of the searched term in the visible text.

Important Points

• Universal Shortcuts: Some of the most common Windows shortcuts include Ctrl + S for Save, Ctrl + P for Print, Ctrl + Z for Undo, and Ctrl + A for Select All. These are vital for digital literacy and productivity.

• OCR Limitations: If a PDF is a scanned image rather than a text-based file, Ctrl + F might not work unless the file has undergone Optical Character Recognition (OCR). OCR technology converts images of typed text into machine-encoded text that can be searched.

YourMockTest.com - Free Study Material

• Selection vs. Search: While Ctrl + C and Ctrl + V are part of the "Copy-Paste" workflow, they are independent of the "Search" workflow triggered by Ctrl + F.

• Application Variety: In Excel, Ctrl + F opens a dialog box that allows searching across Worksheets or Workbooks, demonstrating its versatility beyond just PDFs.

Q11. Answer: (a) 5

Given: (Left) 6 8 @ ! 4 5 ^ 5 * 9 & 4 $ # 3 @ 1 + ? 8 (Right)

Now, Remove all the symbols from the series.

Remaining series: 6 8 4 5 5 9 4 3 1 8

Now, counting from the right: 6 8 4 5 5 9 4 3 1 8

So, the seventh element from the right is 5

Hence, the correct answer is Option 1.

Q12. Answer: (d) Telangana

The correct answer is Telangana.

Key Points

• Cheriyal Scroll Painting is a highly stylized and unique version of Nakashi art, which is native to the state of Telangana in India.

• This traditional art form originated in the Cheriyal village, located in the Siddipet district of Telangana, and has been practiced for several centuries.

• The paintings are primarily used as a tool for storytelling. These scrolls serve as visual aids for traditional balladeers who travel from village to village, narrating stories from Indian Mythology, the Puranas, and the Epics like the Ramayana and Mahabharata.

• In recognition of its unique cultural value and specific geographical origin, Cheriyal Scroll Painting was awarded the Geographical Indication (GI) tag in the year 2007.

• The canvas for these paintings is traditionally prepared using khadi cloth, which is treated with a specialized paste made from tamarind seeds, white mud, and rice starch to ensure the longevity and texture of the Patam (scroll).

Additional Information

• The artisans use natural colors extracted from various organic sources; for instance, white is obtained from ground sea shells, black from lamp soot, yellow from turmeric, and blue from the indigo plant.

• A distinctive feature of Cheriyal paintings is the red background, which makes the figures and narratives stand out prominently. The characters are usually depicted in profile with sharp features and large, expressive eyes.

• The Kaki Padagollu community is the primary group of storytellers associated with these scrolls, using them to perform folklore and mythological dramas for rural audiences.

• Beyond the large scrolls, which could historically reach 40 to 45 feet in length, modern artisans also create Cheriyal masks and dolls. These are made from sawdust and tamarind paste and often represent various deities or characters from rural life.

• Other notable GI-tagged crafts from Telangana include Pochampally Ikat, Silver Filigree of Karimnagar, Pembarthi Metal Craft, and Bidriware from Hyderabad.

Important Points

• While scroll paintings are found in other parts of India, such as Pattachitra in Odisha and Phad paintings in Rajasthan, the Cheriyal style is unique due to its specific iconography and the influence of Deccani artistic traditions.

• In the past, each community had its own set of scrolls; for example, the Madiga community had Goud Purana scrolls, and the Mala community had Markandeya Purana scrolls, showing the deep link between the art and the social fabric of Telangana.

• Due to modernization and the decline of traditional storytelling, the scrolls have been scaled down in size. Today, they are often produced as 1-foot to 3-foot panels intended for interior decoration and souvenirs to preserve the heritage.

Q13. Answer: (b) 165 – 130 – 110 – 85

The logic followed here is:

Logic: Each step decreases by a fixed alternating pattern of −35, −20, −25.

For, 180 – 145 – 125 – 100

=> 180 − 35 = 145

=> 145 − 20 = 125

=> 125 − 25 = 100

For, 145 – 110 – 90 – 65

=> 145 − 35 = 110

=> 110 − 20 = 90

=> 90 − 25 = 65

YourMockTest.com — Free Study Material

Now, checking the options:
Option 1) 155 – 130 – 110 – 75
=> 155 − 25 = 130
Option 2) 165 – 130 – 110 – 85
=> 165 − 35 = 130
=> 130 − 20 = 110
=> 110 − 25 = 85
Option 3) 115 – 80 – 60 – 45
=> 115 − 35 = 80
=> 80 − 20 = 60
=> 60 − 25 = 35 ≠ 45
Option 4) 130 – 95 – 70 – 50
=> 130 − 35 = 95
=> 95 − 20 = 75 ≠ 70
Hence, the correct answer is Option 2.

Q14. Answer: (c) MVG 39

The logic followed here is:
So, 'MVG 39' will replace the question mark in the given series.
Hence, the correct answer is "Option 3"

Q15. Answer: (c) -12

Shortcut Trick
30% of 80 = 24
=> $\sqrt[3]{729} = 9$ and $\sqrt{49} = 7$
=> Expression = 24 − (4/7 × 9 × 7)
=> 7 cancels => 4 × 9 = 36
=> 24 − 36 = −12
Therefore Answer = −12
Alternate Method
Given:
=> y = 30% of 80 − (4/7 × $\sqrt[3]{729}$ × $\sqrt{49}$)
Formula:
=> Percentage: x% of y = (x/100) × y
Calculations:
=> 30% of 80 = (30/100) × 80 = 24
=> $\sqrt[3]{729} = 9$
=> $\sqrt{49} = 7$
=> 4/7 × 9 × 7 = 4 × 9 = 36
=> y = 24 − 36 = −12
Final Answer: −12
Additional Information
1. Percentage Trick: 30% = 3/10, so multiply directly for faster calculation
2. Cube Root Concept: $\sqrt[3]{a^3} = a$
3. Square Root Concept: $\sqrt{a^2} = a$
4. Simplification Tip: Always simplify roots first to reduce calculation time

Q16. Answer: (b) 60°

Shortcut Trick
angle AEF = Corresponding angle CFt (external) = 70°.
angle GEF = angle AEF ÷ 2 = 70° ÷ 2 = 35°.
angle EFG = 180° − (70° + 25°) = 85°.
angle EGF = 180° − (35° + 85°) = 180° − 120° = 60°.

YourMockTest.com — Free Study Material

Therefore Answer = 60°

Alternate Method

Given:

AB || CD, Transversal t. EG bisects angle AEF. angle CFG = 25°, angle CFt (lower angle) = 70°.

Formula used:

1. Corresponding angles are equal for parallel lines.

2. Linear pair angles sum to 180°.

3. Angle Sum Property of a triangle = 180°.

AB CD EF G t 70° 25° x°

Calculations:

Step 1: Find angle AEF.

=> angle AEF and angle CFt (70°) are corresponding angles.

=> angle AEF = 70°

Step 2: Find angle GEF.

=> EG is the bisector of angle AEF.

=> angle GEF = 70° ÷ 2 = 35°

Step 3: Find angle EFG.

=> angle CFE + angle CFt = 180° (Linear pair)

=> angle CFE = 180° − 70° = 110°

=> angle EFG = angle CFE − angle CFG = 110° − 25° = 85°

Step 4: Find angle EGF (x).

=> In ΔEGF, angle EGF + angle GEF + angle EFG = 180°

=> x + 35° + 85° = 180°

=> x + 120° = 180°

=> x = 60°

Therefore The correct answer is 60°.

Additional Information

Alternative Interior Angles

When two parallel lines are cut by a transversal, alternative interior angles (like angle AEF and angle EFD) are equal.

Consecutive Interior Angles

Angles on the same side of the transversal between parallel lines (like angle BEF and angle EFD) sum to 180°.

Vertically Opposite Angles

Angles opposite each other at a vertex where two lines cross are always equal.

External Angle of Triangle

An exterior angle of a triangle is equal to the sum of the two opposite interior angles.

Q17. Answer: (d) Gaseous state

The correct answer is Gaseous state.

Key Points

• The Gaseous state is characterized by particles that have very weak intermolecular forces of attraction, allowing them to stay far apart from one another. Hence, the statement about particles being far apart is correct.

• Particles in a gas possess high Kinetic Energy, which causes them to move randomly and quickly in all possible directions. Hence, the statement about random and quick movement is correct.

• Because of the large intermolecular spaces, gases do not have a fixed shape or a fixed volume; they expand to completely fill the container they are placed in.

• This state of matter is highly compressible compared to solids and liquids, as the empty space between particles can be reduced significantly under pressure.

• The constant, random motion of gas particles leads to a phenomenon known as diffusion, where gases mix evenly with one another regardless of their densities.

Additional Information

• Solid State:

• In a solid, particles are tightly packed in a regular pattern called a lattice.

• The intermolecular forces are strongest in this state, giving solids a definite shape and definite volume.

• Particles only vibrate about their fixed positions and do not move randomly or quickly across distances.

• Liquid State:

• In a liquid, particles are close together but do not have a fixed arrangement.

• Liquids have a fixed volume but take the shape of the container because particles can slide past each other.

• The kinetic energy of liquid particles is higher than in solids but lower than in gases.

• Plasma State:

• Plasma is considered the fourth state of matter, consisting of super-heated, ionized gas.

• It contains electrons and positive ions that move at extremely high speeds, making it highly conductive to electricity.

• It is the most abundant state of matter in the universe, found in stars (including the Sun) and neon signs.

• Bose-Einstein Condensate (BEC):

• This is the fifth state of matter formed when a gas of bosons is cooled to temperatures very close to absolute zero (0 Kelvin or -273.15°C).

• In this state, atoms lose their individual identity and behave as a single quantum entity.

Important Points

• Brownian Motion: This refers to the erratic, zigzag motion of microscopic particles suspended in a fluid (liquid or gas) resulting from their collision with the fast-moving atoms or molecules in the gas or liquid.

• Kinetic Molecular Theory: This theory explains that the pressure exerted by a gas is due to the constant collisions of its particles with the walls of the container.

• Temperature Effect: Increasing the temperature of a gas increases the average kinetic energy of the particles, causing them to move even faster and increase the frequency of collisions.

• Examples: Common examples of the gaseous state include Oxygen (O_2), Nitrogen (N_2), Carbon Dioxide (CO_2), and Water Vapor.

Q18. Answer: (c) Neither conclusion (I) nor (II) follows.

Given Statements:

Some hens are turkeys.

Some hens are ostriches.

Some turkeys are eagles.

The least possible Venn diagram for the given statement is:

Conclusions:

I. Some hens are eagles – False (No direct or definite connection is given).

II. Some turkeys are ostriches – False (No direct relation is given).

So, neither conclusion I nor II follows.

Hence, the correct answer is Option 3.

Q19. Answer: (a) Assam

The correct answer is Assam.

Key Points

• The Baishagu festival is the most popular and cherished festival celebrated by the Boro-Kachari (also known as Bodos) community in the state of Assam.

• It is traditionally celebrated in the middle of April, coinciding with the arrival of the spring season and the start of the Assamese New Year (Bohag Bihu).

• The festival is observed on the first day of the month of Baisakh (Vaisakha) in the Hindu calendar, marking the end of the old year and the beginning of the new harvest cycle.

• The primary purpose of Baishagu is to offer prayers to Lord Bathou (identified as Lord Shiva) for peace, harmony, and a prosperous agricultural yield in the coming year.

• One of the most distinctive features of this festival is the Bagurumba dance, a traditional folk dance performed by Bodo women, characterized by graceful movements that resemble the fluttering of butterflies.

Additional Information

• Boro-Kachari Tribe: They are the largest ethnic and linguistic community in Assam, primarily concentrated in the Bodoland Territorial Region (BTR). They belong to the Tibeto-Burman language family and the Indo-Mongoloid group.

• Ritualistic Practices: The first day of the festival, known as Gwra-Gwra, is dedicated to the worship of cows. Cattle are taken to the riverside, washed, and decorated with garlands made of turmeric and vegetables. The second day, called Manwi, involves people visiting relatives, seeking blessings from elders, and enjoying community feasts.

• Musical Instruments: The celebrations are incomplete without traditional Bodo instruments such as the Sifung (a long bamboo

flute), Kham (a traditional drum), Serja (a bowed violin-like instrument), and Jota (cymbals).

• Traditional Cuisine: During Baishagu, special dishes like Ondla (a rice powder curry) and local preparations made from pork and silkworms are commonly consumed. Jou (traditional rice beer) also plays a role in the festivities.

• Religious Context: While many Bodos follow Bathouism, which involves the worship of the Sijou tree (Euphorbia splendens), the festival is celebrated by all members of the community regardless of their specific religious sects (such as Brahma Dharma or Christianity).

Important Points

• Comparison with Other States:

• Bihar: Known for festivals like Chhath Puja and Sama Chakeva. Its New Year is often celebrated as Jude Sheetal.

• Karnataka: Celebrates its New Year as Ugadi, typically in March or April, according to the Luni-Solar calendar.

• Odisha: Observes Pana Sankranti (also known as Maha Bishuba Sankranti) as the Odia New Year in mid-April.

• Cultural Significance: Baishagu acts as a platform for social bonding and the preservation of tribal heritage in the Northeast region of India. It showcases the deep connection between the Bodo people and nature.

• Dates and Duration: While the official holiday is usually April 14th or 15th, the community celebrations can continue for up to a week.

Q20. Answer: (b) Reduce urban air pollution

The correct answer is Reduce urban air pollution.

Key Points

• The 'Blue Skies 2025' campaign was launched in August 2025 as a renewed national initiative to tackle the growing crisis of air pollution in metropolitan and industrial hubs. The primary objective of this campaign is to Reduce urban air pollution through localized action plans and technological interventions.

• This campaign is an extension of the National Clean Air Programme (NCAP), aiming to achieve a 35% to 45% reduction in Particulate Matter (PM2.5 and PM10) concentrations by the year 2026-2027, using 2024-2025 as the new baseline period. Hence, the statement regarding its objective to reduce pollution is correct.

• The initiative specifically targets 131 non-attainment cities across India that do not meet the National Ambient Air Quality Standards (NAAQS). It focuses on the implementation of City Specific Action Plans (CSAPs) to monitor AQI (Air Quality Index) in real-time.

• Key features of the campaign include the deployment of Smog Towers, the expansion of Mechanical Street Sweepers, and the integration of AI-based traffic management to reduce idling emissions at major intersections.

• The campaign is spearheaded by the Ministry of Environment, Forest and Climate Change (MoEFCC) in collaboration with the Central Pollution Control Board (CPCB). It emphasizes a multi-sectoral approach involving transport, industry, and waste management sectors.

Additional Information

• National Clean Air Programme (NCAP):

• Launched in January 2019, it was India's first-ever effort to frame a national framework for air quality management with a time-bound reduction target.

• The NCAP initially aimed for a 20% to 30% reduction in PM concentrations by 2024, which has been evolved under the Blue Skies 2025 framework to meet more stringent global standards.

• Air Quality Index (AQI):

• The AQI is a tool used by government agencies to communicate to the public how polluted the air currently is or how polluted it is forecast to become.

• It categorizes air quality into six levels: Good (0-50), Satisfactory (51-100), Moderately Polluted (101-200), Poor (201-300), Very Poor (301-400), and Severe (401-500).

• Pollutants Monitored:

• Under the NAAQS, 12 pollutants are monitored, including Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), Particulate Matter (PM10 and PM2.5), Ozone (O_3), Lead (Pb), and Carbon Monoxide (CO).

• The Blue Skies 2025 campaign places a heavy emphasis on Secondary Pollutants like ground-level Ozone, which has become a significant concern during summer months in India.

• International Context:

• The campaign aligns with the United Nations Environment Programme (UNEP) goals and the International Day of Clean Air for Blue Skies, celebrated annually on September 7.

• It contributes to achieving Sustainable Development Goal (SDG) 11 (Sustainable Cities and Communities) and SDG 3 (Good Health and Well-being).

Important Points

• Legislative Framework: The campaign draws its legal authority from the Air (Prevention and Control of Pollution) Act, 1981 and

YourMockTest.com - Free Study Material

the Environment (Protection) Act, 1986. These acts empower the National Green Tribunal (NGT) to impose fines on Urban Local Bodies (ULBs) that fail to meet air quality targets.

• Funding and Scale: For the fiscal year 2025-2026, a budget of Rs. 2,500 crore was allocated for air quality improvement in 42 cities with a population of more than one million, under the recommendation of the 15th Finance Commission.

• Technological Integration: The campaign promotes the PRANA (Portal for Regulation of Air-pollution in Non-Attainment cities) portal, which serves as a centralized platform for monitoring the physical and financial status of city action plans.

• Geographical Focus: While the campaign is national, special focus is given to the Indo-Gangetic Plain (IGP), where topography and meteorological factors often lead to the trapping of pollutants during the winter season.

Q21. Answer: (c) 25 years

The correct answer is 25 years.

Key Points

• According to Article 173 of the Constitution of India, a person must be at least 25 years of age to become a member of the Legislative Assembly (Vidhan Sabha).

• The candidate must be a citizen of India and must make and subscribe before some person authorized in that behalf by the Election Commission an oath or affirmation according to the form set out for the purpose in the Third Schedule.

• For the Legislative Council (Vidhan Parishad) of a state, the minimum age prescribed is 30 years, similar to the Rajya Sabha at the central level.

• The Legislative Assembly is the lower house (in states with a bicameral legislature) or the sole house (in states with a unicameral legislature) of the state legislature in India.

• The members of the Legislative Assembly are directly elected by the people on the basis of adult suffrage from territorial constituencies within the state.

Additional Information

• Age Requirements for Various Constitutional Posts:

• President of India: The minimum age required to contest the election for the President is 35 years (under Article 58).

• Vice-President of India: The minimum age required is 35 years (under Article 66).

• Governor of a State: A person must have completed the age of 35 years to be appointed as a Governor (under Article 157).

• Member of Parliament (Lok Sabha): The minimum age is 25 years, same as the Legislative Assembly.

• Member of Parliament (Rajya Sabha): The minimum age is 30 years.

• Panchayats and Municipalities: For contesting elections to local bodies like Panchayats and Municipalities, the minimum age is 21 years (under Article 243F and Article 243V).

• Voting Age in India:

• The 61st Constitutional Amendment Act, 1988 lowered the voting age from 21 years to 18 years for both Lok Sabha and State Legislative Assembly elections. This came into force in 1989.

Important Points

• Disqualifications for Membership:

• A person can be disqualified from being a member of the Legislative Assembly if they hold any office of profit under the Government of India or the Government of any State.

• If the person is of unsound mind and stands so declared by a competent court, or is an undischarged insolvent.

• If the person is not a citizen of India, or has voluntarily acquired the citizenship of a foreign State.

• Term of the Legislative Assembly:

• The normal term of every Legislative Assembly is 5 years from the date appointed for its first meeting, unless dissolved earlier by the Governor.

• During a Proclamation of Emergency, this period may be extended by Parliament by law for a period not exceeding one year at a time.

• Representation of People Act, 1951:

• Besides constitutional provisions, a person must possess such other qualifications as may be prescribed by Parliament. Under the Representation of People Act, 1951, a person must be an elector for any assembly constituency in that state to contest for the Legislative Assembly.

Q22. Answer: (c) 6

Shortcut Trick

=> Ratio = 4 : 2 : 5 → Let units = 4x, 2x, 5x

=> Total cost per x = (4×280 + 2×180 + 5×115)

=> = 1120 + 360 + 575 = 2055

=> Total = 6165 => x = 6165 ÷ 2055 = 3

=> Q articles = 2x = 6

Therefore Answer = 6

Alternate Method

Given:

=> Price of P = 280

=> Price of Q = 180

=> Price of R = 115

=> Ratio = 4 : 2 : 5

=> Total cost = 6165

Calculation:

=> Let number of articles = 4x, 2x, 5x

=> Total cost = 4x×280 + 2x×180 + 5x×115

=> = 1120x + 360x + 575x

=> = 2055x

=> 2055x = 6165

=> x = 6165 ÷ 2055 = 3

=> Number of Q = 2x = 6

Therefore Final Answer: 6

Additional Information

1. Ratio Concept: If ratio is a:b:c → quantities = ax, bx, cx
2. Total Cost: Sum of (quantity × price)
3. Unit Method: First find cost per unit ratio, then scale
4. Shortcut Tip: Always combine ratio with prices first

Q23. Answer: (c) Maldives

The correct answer is Maldives.

Key Points

• Maldives is an island country located in the Indian Ocean, situated to the south-west of the Indian mainland. It is officially known as the Republic of Maldives and consists of a double chain of 26 atolls.

• Along with Sri Lanka, it is identified as one of India's two primary southern neighbours across the Indian Ocean. While Sri Lanka is separated from India by the Palk Strait, the Maldives is separated from the Indian island of Minicoy (part of Lakshadweep) by the Eight Degree Channel.

• The geographical location of the Maldives is of immense strategic importance to India for maintaining maritime security and stability in the Indian Ocean Region (IOR).

• The country is composed of approximately 1,192 coral islands, though only about 200 of these are inhabited. It is the smallest Asian country by both land area (approx. 298 square kilometers) and population.

• In the context of the question, Maldives is the correct option as it specifically fits the description of a southern maritime neighbor alongside Sri Lanka. Hence, the option Maldives is correct.

Additional Information

• Sri Lanka: It is an island nation located in South Asia, separated from the Indian subcontinent by the Gulf of Mannar and the Palk Strait. Its location is just off the southern tip of India, making it the closest maritime neighbor.

• Thailand: This country is located in Southeast Asia. While India and Thailand share a maritime boundary in the Andaman Sea, it is positioned to the east of India rather than being a direct southern neighbor across the Indian Ocean mainland. Hence, this statement is incorrect.

• Indonesia: It is a massive archipelago in Southeast Asia and Oceania. India shares a maritime border with Indonesia at the Great Channel (or Six Degree Channel), which separates Indira Point in the Andaman and Nicobar Islands from Aceh in Sumatra. However, it is generally categorized as a neighbor to the south-east. Hence, this statement is incorrect.

• Bhutan: It is a landlocked country in the Eastern Himalayas, bordered by India to the south, east, and west, and China to the north. Since it has no coastline and is located to the north of India, it cannot be a southern neighbor across the Indian Ocean. Hence, this statement is incorrect.

• Malé: It is the capital and most populous city of the Maldives, located on the southern edge of the North Malé Atoll.

Important Points

• Eight Degree Channel: This is the maritime boundary that separates the Maldives from India's Minicoy Island. It is so named

YourMockTest.com — Free Study Material

because it lies on the 8-degree north latitude.

• Nine Degree Channel: This channel separates the island of Minicoy from the rest of the Lakshadweep islands.

• Ten Degree Channel: This body of water separates the Andaman Islands from the Nicobar Islands in the Bay of Bengal.

• Historical Ties: India was one of the first countries to recognize the Maldives after its independence in 1965 and established diplomatic relations in 1966.

• Operation Cactus: In 1988, India provided military assistance to the Maldives government to thwart a coup attempt, further cementing the security partnership between the two nations.

• International Memberships: Maldives is a member of the United Nations (UN), the Commonwealth, and the South Asian Association for Regional Cooperation (SAARC).

Q24. Answer: (d) 7.5

Shortcut Trick

=> Assume total goods = 100 units

=> 50 sold at +16% → weight = 50

=> Remaining = 50 → 40% of 50 = 20 sold at +35%

=> Remaining = 30 sold at −25%

=> Net % = (50×16 + 20×35 − 30×25) ÷ 100

=> = (800 + 700 − 750) ÷ 100 = 750 ÷ 100 = 7.5%

Therefore Answer = 7.5%

Alternate Method

Given:

=> 50% goods sold at 16% profit

=> Remaining 50%

=> 40% of remaining sold at 35% profit → 20%

=> Remaining = 30% sold at 25% loss

Calculation:

=> Assume total CP = 100

=> Part 1: 50 at +16% → SP = 50 × 1.16 = 58

=> Part 2: 20 at +35% → SP = 20 × 1.35 = 27

=> Part 3: 30 at −25% → SP = 30 × 0.75 = 22.5

=> Total SP = 58 + 27 + 22.5 = 107.5

=> Profit = 107.5 − 100 = 7.5

=> Profit% = 7.5%

Therefore Final Answer: 7.5%

Additional Information

1. Weighted Average: Overall % = (sum of weighted profits) ÷ total

2. Successive Distribution: Always track remaining quantity stepwise

3. Profit/Loss Formula: Profit% = (SP − CP) ÷ CP × 100

4. Smart Assumption: Taking total = 100 simplifies percentage problems

Q25. Answer: (a) 138

The logic followed here is:

thus, "138" will replace the question mark in the given series.

Hence, the correct option is "Option 1".

Q26. Answer: (a) 1948

The correct answer is 1948.

Key Points

• The Census Act was enacted in the year 1948 to provide for certain matters relating to the taking of the census. It provides the legal framework for the decennial census in India.

• The responsibility of conducting the decennial census rests with the Office of the Registrar General and Census Commissioner, which comes under the Ministry of Home Affairs, Government of India.

• The Census Act, 1948 ensures the confidentiality of the data collected. According to the act, the information collected from individuals is used only for statistical purposes and cannot be used as evidence in a court of law.

YourMockTest.com — Free Study Material

• The act empowers the Central Government to declare its intention to take a census whenever it may consider it necessary or desirable to do so. Generally, this exercise is conducted every 10 years.

• Under this act, the census officers are appointed to oversee the enumeration process across the states and union territories of India. It also makes it obligatory for every person to answer the questions asked by the census officers to the best of their knowledge.

Additional Information

• Historical Background of Census:

• The first non-synchronous census in India was conducted in 1872 during the viceroyalty of Lord Mayo.

• The first synchronous census (conducted simultaneously across the country) took place in 1881 under Lord Ripon. Since then, censuses have been undertaken uninterruptedly once every ten years.

• The Census of 2011 was the 15th census of India since 1872 and the 7th census after independence.

• Constitutional Provision:

• The Population Census is a Union subject under Article 246 of the Constitution of India.

• It is listed as serial number 69 in the Seventh Schedule (Union List) of the Constitution.

• Significance of Census Data:

• The data collected serves as the basis for the delimitation of constituencies for Parliament, State Legislative Assemblies, and local bodies.

• It is a vital source of information for policymakers, researchers, and administrators to track progress and plan future socio-economic developments.

Important Points

• Socio-Economic and Caste Census (SECC):

• While the regular census is conducted under the Census Act, 1948, the Socio-Economic and Caste Census (SECC) of 2011 was conducted to identify beneficiaries of government schemes.

• Unlike the regular census, where individual data is confidential, the data in SECC is open for use by government departments to grant or restrict benefits to households.

• Administrative Hierarchy:

• The Registrar General and Census Commissioner of India is the highest-ranking officer responsible for the census.

• At the state level, the Director of Census Operations assists in the execution of the survey.

• The District Collector or District Magistrate acts as the District Census Officer to coordinate the work at the local level.

Q27. Answer: (a) 4

The logic followed here is:

Given:

TIER → 2735

TIME → 3475

So, M → 4

Hence, the correct answer is Option 1.

Q28. Answer: (a) To facilitate reciprocal military logistics support between India and Russia

The correct answer is To facilitate reciprocal military logistics support between India and Russia.

Key Points

• The RELOS agreement stands for the Reciprocal Exchange of Logistics Agreement. Its primary purpose is to simplify and facilitate reciprocal military logistics support, including the exchange of supplies and services between the armed forces of India and Russia. Hence, option 1 is correct.

• Under this agreement, the Indian Navy, Air Force, and Army gain access to Russian facilities for refueling, replenishment, and maintenance. In exchange, Russian forces can utilize Indian ports and military bases for similar logistical requirements.

• The agreement signed in December 2025 aims to streamline the administrative process for logistics, which previously required case-by-case clearance. This pact covers maritime, air, and land military assets during joint exercises, peacekeeping operations, and humanitarian assistance and disaster relief (HADR) missions.

• The RELOS agreement is a significant milestone in the India-Russia Strategic Partnership, ensuring that both nations can maintain their military platforms more efficiently in the Indian Ocean Region and the Arctic region.

• The agreement specifically excludes any provision for the permanent stationing of troops, focusing strictly on logistical interoperability and technical support. Hence, the primary purpose is military logistics.

Additional Information

• Strategic Comparison (LEMOA): India has signed similar logistics pacts with other Quad partners. For instance, the LEMOA

(Logistics Exchange Memorandum of Agreement) was signed with the United States in 2016. India also has such agreements with France, Australia, South Korea, Japan, and Singapore.

• Arctic and Indo-Pacific: For India, the RELOS agreement is particularly beneficial for its increasing interest in the Arctic Council and the Northern Sea Route, where Russia holds a dominant position. Conversely, Russia gains a stronger logistical foothold in the Indian Ocean through access to Indian ports.

• Defense Cooperation: Russia remains a top defense supplier to India. Important projects include the S-400 Triumf missile system, AK-203 assault rifles being manufactured in Amethi, Uttar Pradesh, and the BrahMos missile joint venture.

• Institutional Framework: Military cooperation between the two countries is managed under the India-Russia Inter-Governmental Commission on Military-Technical Cooperation (IRIGC-MTC), which meets annually to review bilateral defense ties.

Important Points

• Interoperability: The agreement enhances the Interoperability of the two militaries, allowing them to work more closely during bilateral exercises like INDRA, which involves the Army, Navy, and Air Force of both nations.

• Operational Reach: By utilizing Russian airbases and seaports, the Indian Armed Forces can extend their operational reach far beyond their immediate neighborhood without the need for dedicated tankers or supply ships for every mission.

• Mutual Trust: Signing RELOS signifies a high level of Mutual Trust and commitment to a Multi-polar world order, reinforcing that Russia remains a "Special and Privileged Strategic Partner" for India.

Q29. Answer: (d) 159.25

Shortcut Trick

=> Pair smartly: (312 + 100) + (126 + 99)

=> = 412 + 225 = 637

=> Average = 637 ÷ 4

=> = 159.25

Therefore Answer = 159.25

Alternate Method

Given:

=> Numbers = 312, 126, 100, 99

Formula:

=> Average = (Sum of values) ÷ Number of values

Calculation:

=> Sum = 312 + 126 + 100 + 99 = 637

=> Count = 4

=> Average = 637 ÷ 4 = 159.25

Therefore Final Answer: 159.25

Additional Information

1. Average Formula: Average = Total Sum ÷ Number of items

2. Shortcut Tip: Pair numbers to simplify addition

3. Weighted Average: Used when values have different frequencies

4. Reverse Concept: Total = Average × Number of items

Q30. Answer: (d) 1820

Shortcut Trick

=> 2 pages → 40 min => 1 page → 20 min

=> 91 pages → 91 × 20

=> = 1820 minutes

Therefore Answer = 1820 minutes

Alternate Method

Given:

=> 2 pages = 40 minutes

=> 91 pages = ?

Method:

=> Time is directly proportional to pages

Calculation:

=> 2 : 40 = 91 : x

=> x = (91 × 40) ÷ 2
=> x = 91 × 20
=> x = 1820 minutes
Therefore Final Answer: 1820 minutes
Additional Information
1. Direct Proportion: More pages → more time
2. Unitary Method: Find value of 1 unit first
3. Formula: Time per page = Total time ÷ Total pages
4. Shortcut: Always reduce to 1 unit for faster calculation

Q31. Answer: (c) HIKE-HIEK-IHKE

The logic followed here is:
Logic: The pattern rearranges letters in the order 1–3–2–4 → 2–1–3–4
BALD → BADL → ABLD
EPIC → EPCI → PEIC
Now, checking the options:
Option 1: FIRE – IREF – FRIE
Option 2: COME – COEM – OEMC
Option 3: HIKE – HIEK – IHKE
Option 4: PART – RTPA – APTR
Hence, the correct answer is Option 3.

Q32. Answer: (b) Rs. 2,070

Shortcut Trick
=> Profit ratio = 31 : 34
=> Difference in ratio = 34 − 31 = 3
=> Total ratio = 65
=> Difference = (3 ÷ 65) × 44850
=> = 3 × 690 = 2070
Therefore Answer = 2070
Alternate Method
Given:
=> Investment ratio = 31 : 34
=> Total profit = 44850
Concept:
=> Profit is divided in ratio of investments
Calculation:
=> Total parts = 31 + 34 = 65
=> Value of 1 part = 44850 ÷ 65 = 690
=> Madhu's share = 31 × 690 = 21390
=> Madhuri's share = 34 × 690 = 23460
=> Difference = 23460 − 21390 = 2070
Therefore Final Answer: 2070
Additional Information
1. Partnership Rule: Profit prop. to Investment × Time
2. Ratio Method: Share = (Individual ratio ÷ Total ratio) × Total profit
3. Difference Shortcut: (Difference in ratio ÷ Total ratio) × Total
4. Unit Value: First find value of 1 part for fast calculation

Q33. Answer: (b) Pocket Veto

The correct answer is Pocket Veto.
Key Points
• In the landmark case of State of Tamil Nadu v. Governor of Tamil Nadu, the Supreme Court of India clarified the scope of

YourMockTest.com — Free Study Material

powers under Article 200 of the Constitution. The court ruled that a Governor cannot exercise a Pocket Veto, which refers to the practice of sitting on a bill indefinitely without taking any action. Hence, the statement regarding the prohibition of a Pocket Veto is correct.

• The Supreme Court emphasized that the phrase "as soon as possible" in the first proviso of Article 200 has significant constitutional weight. It implies that the Governor must return the bill to the State Legislature if they choose to withhold assent, rather than keeping it pending for an unlimited duration.

• The ruling established that if the Governor returns a bill and the State Legislature repasses it with or without amendments, the Governor is constitutionally mandated to give assent. This ensures that the Governor, as a formal head, does not thwart the legislative will of the elected State Government. Hence, the limitation on the Governor's power to block legislation is correct.

• The court noted that the Governor is not a parallel source of lawmaking and must act on the aid and advice of the Council of Ministers, except in specific discretionary matters. By withholding action (a Pocket Veto), the Governor would be acting against Constitutional Morality.

• The judgment also clarified that once the Governor withholds assent, they must return the bill to the House. They cannot simply "withhold" and then do nothing, as that would result in a legislative stalemate.

Additional Information

• Article 200 of the Indian Constitution:

• This article outlines the options available to a Governor when a bill is presented to them after being passed by the State Legislature.

• The Governor can: 1. Give assent to the bill; 2. Withhold assent; 3. Return the bill (if it is not a Money Bill) for reconsideration; 4. Reserve the bill for the consideration of the President.

• The Supreme Court's interpretation in 2024-2025 reinforces that these options must be exercised within a reasonable timeframe to maintain Federalism.

• Types of Veto Powers in India:

• Absolute Veto: The power to say 'no' to a bill, after which it dies. In India, the President or Governor usually exercises this only on Private Members' Bills or when a cabinet resigns.

• Suspensive Veto: The power to return a bill for reconsideration. If the Legislature passes it again by a simple majority, the veto is overridden.

• Pocket Veto: Taking no action on a bill. While the President of India has exercised a Pocket Veto in the past (e.g., Postal Bill, 1986 by Giani Zail Singh), recent rulings suggest Governors cannot use this to stall State legislation.

• Role of the President under Article 201:

• When a Governor reserves a bill for the President, Article 201 comes into play. The President may either give assent, withhold it, or direct the Governor to return the bill to the House.

• Unlike the Governor, there is no specific timeline mentioned for the President to take action, which is a subject of ongoing legal debate regarding State autonomy.

Important Points

• Constitutional Bench Observations: The Supreme Court bench, often led by the Chief Justice of India, has repeatedly stated that Governors should not be "adversaries" to the State Governments. The 2025 legal discourse emphasizes that delays in assent can paralyze governance.

• Money Bills: Under Article 200, a Governor cannot return a Money Bill for reconsideration. They must either grant assent or withhold it (though the latter is rare and usually requires ministerial advice).

• Impact on State Relations: Cases involving Tamil Nadu, Kerala, and Punjab have highlighted the friction between Raj Bhavan and State Secretariats. The Supreme Court ruling serves as a binding precedent under Article 141, ensuring that Governors across all 28 States follow a disciplined timeline.

• Historical Context: The Sarkaria Commission (1983) and the Punchhi Commission (2007) both recommended that Governors should clear bills within a period of six months, a principle now being codified through judicial interpretation.

Q34. Answer: (a) Agriculture vs. industry

The correct answer is Agriculture vs. industry.

Key Points

• The economic strategy of India between 1951 and 1991 was defined by the Five-Year Plans, which often faced the fundamental trade-off between Agriculture and Industry.

• During the First Five-Year Plan (1951–1956), the primary focus was on the Agricultural Sector to achieve food self-sufficiency and stabilize the economy after Partition. This plan was based on the Harrod-Domar Model.

• The Second Five-Year Plan (1956–1961), drafted by P.C. Mahalanobis, shifted the priority drastically toward Rapid Industrialization and Heavy Industries. This shift created a structural imbalance as resources were diverted from the rural agrarian economy to urban industrial centers.

• The trade-off led to a crisis in the mid-1960s, where stagnant agricultural productivity resulted in severe food shortages and a

heavy reliance on PL-480 food aid from the USA.

• While industrialization was seen as a path to modernization and self-reliance, the neglect of agriculture limited the internal market's purchasing power, ultimately slowing down the overall balanced sectoral growth of the Indian economy.

Additional Information

• Industrial Policy Resolution (IPR) 1956:

• This policy formed the basis of the Second Five-Year Plan and categorized industries into three schedules, giving the Public Sector the "commanding heights" of the economy.

• It aimed at Import Substitution Industrialization (ISI) to protect domestic industries from foreign competition through high tariffs and quotas.

• The Green Revolution (1960s):

• To address the agriculture vs. industry imbalance, the government introduced High-Yielding Variety (HYV) seeds, chemical fertilizers, and improved irrigation.

• This initiative, led by M.S. Swaminathan, helped India achieve food security but was initially restricted to Punjab, Haryana, and western Uttar Pradesh.

• Import Substitution vs. Export Promotion:

• Between 1951 and 1991, India followed an inward-looking trade strategy. The trade-off here was that by restricting imports, Indian industries became inefficient due to lack of global competition, and exports remained stagnant.

• The 1991 Economic Reforms:

• Due to a Balance of Payments (BoP) crisis in 1991, India moved away from the License Raj and adopted Liberalization, Privatization, and Globalization (LPG).

• This marked the end of the strict sectoral trade-offs dictated by centralized planning, allowing the Services Sector to emerge as a major contributor to the GDP.

Important Points

• Mahalanobis Model: Focused on Capital Goods industries (like steel and machine tools) over Consumer Goods, assuming that building a base for heavy industry would lead to long-term economic growth.

• Structural Composition: During this period, the share of Agriculture in GDP declined, but the percentage of the workforce dependent on it did not drop significantly, leading to disguised unemployment.

• Role of Public Sector: The state took the lead in infrastructure and heavy manufacturing, while the Private Sector was heavily regulated through the MRTP Act (1969).

Q35. Answer: (b) Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answe...

Given Statements:

I. Darpan scored more than Alok and Bharti but less than Celine.

II. Ema scored more than Darpan but less than Celine.

Question: Who scored the third highest marks?

Analysis:

From Statement I:

Celine > Darpan > Alok, Bharti

Position of Ema is unknown → Cannot determine 3rd highest → Not sufficient

From Statement II:

Celine > Ema > Darpan

No information about Alok, Bharti → Cannot determine 3rd highest → Not sufficient

Combining I and II:

Celine > Ema > Darpan > Alok, Bharti

Now, exact order between Alok and Bharti is unknown, but top three are clear

=> 1st: Celine

=> 2nd: Ema

=> 3rd: Darpan

So, Darpan is the third highest

Here, both statements together are sufficient, but neither alone is sufficient.

Hence, the correct answer is "Option 2".

Q36. Answer: (b) 3:1

The correct answer is 3:1.

Key Points

• A monohybrid cross is a genetic cross between two individuals that differ in only one trait or characteristic. This type of cross was famously used by Gregor Mendel, often referred to as the Father of Genetics, to understand the patterns of inheritance in 1856-1863.

• The F2 generation (Second Filial generation) is produced by the self-pollination or selfing of the F1 generation (First Filial generation) plants. In Mendel's experiments with the garden pea (Pisum sativum), the F1 generation always displayed the dominant phenotype.

• When the F1 hybrids (genotype Tt) were crossed with each other, the recessive trait that was hidden in the F1 generation reappeared in the F2 generation. The phenotypic ratio observed was 3:1, meaning 75% of the offspring exhibited the dominant trait and 25% exhibited the recessive trait.

• The genotypic ratio of the F2 generation in a monohybrid cross is 1:2:1, consisting of one homozygous dominant (TT), two heterozygous (Tt), and one homozygous recessive (tt) individual.

• This 3:1 ratio confirms the Law of Segregation, which states that allele pairs separate during gamete formation and randomly unite at fertilization. Hence, the statement regarding the 3:1 ratio is correct.

Additional Information

• Genotype vs. Phenotype: The genotype refers to the actual genetic makeup of an organism (the alleles it carries), while the phenotype refers to the observable physical features or functions resulting from those genes, such as height, color, or shape.

• Law of Dominance: This principle suggests that in a heterozygous pair, the dominant allele masks the expression of the recessive allele. This is why the F1 generation only shows one trait, but the F2 generation shows both in a 3:1 ratio.

• Dihybrid Cross: If two pairs of contrasting traits are studied simultaneously (e.g., seed shape and seed color), the F2 phenotypic ratio changes to 9:3:3:1. This led to Mendel's Law of Independent Assortment.

• Punnett Square: This statistical tool was developed by Reginald C. Punnett in 1905 to predict the probability of offspring inheriting specific genotypes and phenotypes from a cross.

• Mendel's Selection: Mendel chose 7 pairs of contrasting traits in pea plants, including stem height (Tall/Dwarf), flower position (Axial/Terminal), and seed color (Yellow/Green), because they were easily identifiable and the plants were easy to cultivate.

Important Points

• Incomplete Dominance: In some organisms like the 4 o'clock plant (Mirabilis jalapa), the F2 phenotypic ratio is 1:2:1 instead of 3:1, because the heterozygote shows an intermediate phenotype (e.g., Pink flowers from Red and White parents).

• Test Cross: This is a cross between an individual of unknown genotype showing a dominant phenotype and a homozygous recessive parent. The resulting ratio for a monohybrid test cross is 1:1, which helps determine if the parent is pure-bred or hybrid.

• Data and Facts: In one of his experiments, Mendel obtained 787 tall plants and 277 dwarf plants in the F2 generation, which mathematically approximates the 2.84:1 ratio, rounded to the standard 3:1 ratio.

• Modern Genetics: While Mendelian ratios are foundational, modern biology also explores polygenic inheritance and multiple alleles (like ABO blood groups), where ratios do not follow the simple 3:1 pattern.

Q37. Answer: (d) T

Given: P, Q, R, S, T, U and V sit around a circular table facing the centre.

V sits to the immediate left of T.

U sits to the immediate left of R.

R sits second to the left of S.

Q sits third to the left of T.

So, the person sitting 2nd to the right of S is T.

Hence, the correct answer is "Option 4".

Q38. Answer: (b) Three

Given: X, Y, Z, S, T and U live on six different floors of the same building.

The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.

S lives on floor number 5.

X lives on a floor above S.

Only U lives below Y.

Z lives on an even numbered floor.

Floor	Person

6	X
5	S
4	Z
3	T
2	Y
1	U

Now, people below Z: 3 people

Hence, the correct answer is Option 2.

Q39. Answer: (b) 60%

Shortcut Trick

=> CP = 100

=> MP = 100 + 180% = 280

=> Required SP for 12% profit = 112

=> Discount% = (280 − 112) ÷ 280 × 100

=> = 168 ÷ 280 × 100 = 60%

Therefore Answer = 60%

Alternate Method

Given:

=> Marked price is 180% above CP

=> Profit = 12%

Assume:

=> CP = 100

Calculation:

=> MP = 100 + 180 = 280

=> SP for 12% profit = 100 + 12 = 112

=> Discount = MP − SP = 280 − 112 = 168

=> Discount% = (168 ÷ 280) × 100

=> = 60%

Therefore Final Answer: 60%

Additional Information

1. Marked Price: MP = CP + Markup%

2. Profit Formula: SP = CP × (1 + Profit%)

3. Discount Formula: Discount% = (MP − SP) ÷ MP × 100

4. Shortcut: Always assume CP = 100 for quick calculation

Q40. Answer: (d) = BLT % = VFN

The logic followed here is:

For, KUC → VFN

Now, applying the same logic for # → MWE

To get MWE, shift each letter +11:

So, # = BLT

Here, the correct pair is # = BLT and % = VFN.

Hence, the correct answer is Option 4.

Q41. Answer: (d) Tantia Tope, known for his guerrilla warfare and patriotic resistance

The correct answer is Tantia Tope, known for his guerrilla warfare and patriotic resistance.

Key Points

• Tantia Tope, whose real name was Ramachandra Panduranga Yawalkar, was the most significant military leader and the commander-in-chief of Nana Sahib's forces during the Revolt of 1857.

YourMockTest.com — Free Study Material

• He was a loyal associate of Nana Sahib and played a pivotal role in the liberation of Kanpur from British control in June 1857.

• He is celebrated in Indian history for his mastery of guerrilla warfare, which he used effectively to harass British troops across Central India and the Bundelkhand region.

• After the fall of Kanpur, he continued the struggle alongside Rani Lakshmibai of Jhansi and successfully captured Gwalior in 1858.

• Despite being pursued by several British columns, he remained at large for nearly two years until he was betrayed by his trusted friend, Man Singh, a feudatory of the Raja of Gwalior.

• He was captured by the British in the jungles of Paron and was executed at Shivpuri on April 18, 1859.

Additional Information

• Nana Sahib:

• Born as Dhondu Pant, he was the adopted son of the last Maratha Peshwa, Baji Rao II.

• The primary grievance of Nana Sahib against the British East India Company was the refusal to continue his father's pension of 8 lakh rupees (or £80,000) after the Peshwa's death in 1851.

• He led the Revolt of 1857 at Kanpur and was proclaimed the Peshwa by the rebel sepoys.

• Azimullah Khan:

• He was a sophisticated diplomat and the chief political advisor (Secretary) to Nana Sahib.

• In 1853, he traveled to London to represent Nana Sahib's case regarding the pension before the Board of Control and the British Parliament.

• He was instrumental in spreading political propaganda and coordinating with various rebel leaders across Northern India.

• Baji Rao II:

• He was the last Peshwa of the Maratha Empire, reigning from 1795 to 1818.

• After the Third Anglo-Maratha War, he was deposed by the British and exiled to Bithoor near Kanpur.

• Bahadur Shah Zafar:

• The last Mughal Emperor, he was chosen as the symbolic head and Shahenshah-e-Hindustan by the rebel sepoys in Delhi in May 1857.

• Although he gave his blessings to Nana Sahib and appointed him as his Governor (Vakil-i-Mutlaq), his own military authority was largely confined to the Red Fort.

Important Points

• The Siege of Kanpur: The conflict in Kanpur began on June 4, 1857, and lasted for three weeks. The British forces under General Sir Hugh Wheeler surrendered on June 27, 1857.

• British Suppression: The British forces, led by General Henry Havelock and later Sir Colin Campbell, eventually recaptured Kanpur by December 1857.

• Nana Sahib's Fate: Following the defeat, Nana Sahib escaped towards the Terai region of Nepal in early 1859. His exact date and place of death remain a subject of historical debate and mystery.

• Significance of Tantia Tope: His resistance is considered one of the most heroic chapters of the First War of Indian Independence, as he managed to keep the flame of rebellion alive long after other major centers like Delhi and Lucknow had fallen.

Q42. Answer: (b) 58

Shortcut Trick

=> Total = 138 => N/2 = 69

=> C.F just before 69 = 57, next = 72 → class = 50-60

=> Direct use: 50 + [(69 − 57)/15] × 10

=> = 50 + (12/15)×10 = 50 + 8

=> = 58

Therefore Answer = 58

Alternate Method

Given:

=> N = 138

=> N/2 = 69

=> Median class = 50-60

=> l = 50, f = 15, cf = 57, h = 10

Formula:

=> Median = l + [(N/2 − cf) ÷ f] × h

Calculation:

=> Median = 50 + [(69 − 57) ÷ 15] × 10

=> = 50 + (12 ÷ 15)×10

=> = 50 + 8

=> = 58

Therefore Final Answer: 58

Additional Information

1. Median Class: Class where cumulative frequency exceeds N/2
2. Lower Limit (l): Starting value of median class
3. Cumulative Frequency (cf): Frequency before median class
4. Class Width (h): Difference between class limits

Q43. Answer: (c) Article 108

The correct answer is Article 108.

Key Points

• Article 108 of the Constitution of India provides for the joint sitting of both Houses of Parliament (the Lok Sabha and the Rajya Sabha) in certain cases to resolve a deadlock between them. Hence, the statement regarding Article 108 is correct.

• A joint sitting can be summoned by the President of India if a bill passed by one House is rejected by the other House, or if the Houses have finally disagreed as to the amendments to be made in the bill, or if more than six months elapse from the date of the reception of the bill by the other House without the bill being passed by it.

• The Speaker of the Lok Sabha presides over a joint sitting of the two Houses. In the absence of the Speaker, the Deputy Speaker of the Lok Sabha presides. If the Deputy Speaker is also absent, the Deputy Chairman of the Rajya Sabha presides. Notably, the Chairman of the Rajya Sabha (the Vice-President of India) does not preside over a joint sitting.

• The bill in a joint sitting is passed by a simple majority of the total number of members of both Houses present and voting. This usually gives the Lok Sabha an advantage due to its larger numerical strength.

• It is important to note that the provision of a joint sitting applies only to Ordinary Bills and Financial Bills. It does not apply to Money Bills or Constitutional Amendment Bills under Article 368.

Additional Information

• Article 115:

• This article deals with Supplementary, additional, or excess grants.

• If the amount authorized by any law made in accordance with the provisions of Article 114 to be expended for a particular service for the current financial year is found to be insufficient, the President shall cause to be laid before both Houses of Parliament another statement showing the estimated amount of that expenditure.

• It ensures that the Government of India can seek additional funds if the initial budgetary allocation is exhausted before the end of the financial year. Hence, the statement regarding Article 115 is not the correct answer for joint sittings.

• Article 104:

• This article pertains to the penalty for sitting and voting before making an oath or affirmation under Article 99 or when not qualified or when disqualified.

• If a person sits or votes as a member of either House of Parliament before he has complied with the requirements of Article 99, he shall be liable in respect of each day on which he so sits or votes to a penalty of five hundred rupees to be recovered as a debt due to the Union. Hence, the statement regarding Article 104 is not the correct answer.

• Article 94:

• This article specifies the vacation and resignation of, and removal from, the offices of Speaker and Deputy Speaker of the House of the People (Lok Sabha).

• It states that a member holding office as Speaker or Deputy Speaker shall vacate his office if he ceases to be a member of the House of the People.

• It also mentions that the Speaker may resign by writing under his hand addressed to the Deputy Speaker, and vice-versa. Hence, the statement regarding Article 94 is not the correct answer.

Important Points

• In the history of the Republic of India, there have been only three occasions when a joint sitting of both Houses of Parliament was convened to resolve a deadlock:

• 1961: For the Dowry Prohibition Bill.

• 1978: For the Banking Service Commission (Repeal) Bill.

• 2002: For the Prevention of Terrorism Bill (POTA).

• The Quorum for a joint sitting is one-tenth of the total number of members of both Houses.

YourMockTest.com — Free Study Material

• The joint sitting is governed by the Rules of Procedure of Lok Sabha and not the Rajya Sabha Rules.

• Since the Lok Sabha has 543 members and the Rajya Sabha has 245 members, the will of the Lok Sabha generally prevails in these sessions unless the ruling party in the Lok Sabha has a very slim majority.

Q44. Answer: (c) Brother

Family Chart:

Decoding the Symbols:

Symbol	•	–	×	÷
Meaning	Mother	Brother	Husband	Daughter

Given: H - V ÷ K × T + R

It means: H is the brother of V, V is the daughter of K, K is the husband of T, T is the mother of R.

Here, H is related to R as Brother.

Hence, the correct answer is "Option 3".

Q45. Answer: (b) New Delhi

The correct answer is New Delhi.

Key Points

• The 2nd WHO Global Summit on Traditional Medicine is scheduled to be held in New Delhi, India, starting from 17 December 2025.

• This high-level event is co-hosted by the World Health Organization (WHO) and the Ministry of Ayush, Government of India.

• The summit focuses on mobilizing political commitment and evidence-based action on traditional, complementary, and integrative medicine (TCIM) to address global health challenges.

• It serves as a follow-up to the inaugural summit held in August 2023, which aimed to integrate traditional knowledge with modern science for Universal Health Coverage (UHC).

• The choice of India as the host city highlights the country's leadership in the global traditional medicine sector, especially through the Ayush systems (Ayurveda, Yoga, Unani, Siddha, and Homeopathy).

Additional Information

• WHO Global Centre for Traditional Medicine (GCTM):

• Established in Jamnagar, Gujarat, in 2022, it is the first and only global outposted centre for traditional medicine.

• The GCTM focuses on evidence, data, sustainability, and optimization of traditional medicine's contribution to global health.

• The 1st Global Summit:

• The first summit took place in Gandhinagar, Gujarat, in 2023 alongside the G20 Health Ministers' Meeting.

• It resulted in the Gujarat Declaration, which emphasized the integration of traditional medicine into national health systems based on scientific rigor.

• Scope of Traditional Medicine:

• According to the WHO, traditional medicine is the sum total of the knowledge, skills, and practices based on theories and experiences indigenous to different cultures.

• Approximately 80% of the world's population is estimated to use some form of traditional medicine, including herbal medicines, acupuncture, and manual therapies.

• Ministry of Ayush:

• The Ministry of Ayush was formed on 9 November 2014 to ensure the optimal development and propagation of AYUSH healthcare systems.

• It plays a pivotal role in regulating education and research standards in traditional medicine within India and internationally.

Important Points

• Biodiversity and Sustainability: The 2025 summit will likely emphasize the conservation of biodiversity, as many traditional medicines rely on natural resources and medicinal plants.

• Digital Health Integration: Discussions are expected to cover the use of Artificial Intelligence (AI) and digital tools to document and validate traditional medical practices.

• Global Participation: The event will see participation from health ministers, policymakers, scientists, and practitioners from over 100 countries.

• Economic Impact: The global market for herbal medicines and traditional health products is growing rapidly, with a projected value exceeding $200 billion by the end of the decade.

YourMockTest.com — Free Study Material

Q46. Answer: (b) Shariatullah Khan and Dadu Mian

The correct answer is Shariatullah Khan and Dadu Mian.

Key Points

• The Faraizi Movement (or Farazi Movement) was initiated by Haji Shariatullah in 1818 in East Bengal (specifically Faridpur). It initially focused on religious reforms but later evolved into a socio-economic struggle.

• Haji Shariatullah advocated for the fulfillment of Faraiz (obligatory duties enjoined by Allah) and encouraged the peasantry to protect their rights against the oppression of Zemindars and Indigo planters.

• Following the death of Haji Shariatullah in 1840, his son Muslihuddin Muhammad Hamam, popularly known as Dadu Mian, took over the leadership and turned the movement into a revolutionary organization between 1838 and 1848.

• Dadu Mian organized the first-ever no-tax campaign in Bengal, urging farmers and peasants not to pay taxes to landlords, whom he considered illegal intermediaries. He proclaimed that "land belongs to God," and thus no one had the right to collect taxes on it. Hence, the statement regarding Shariatullah Khan and Dadu Mian leading the movement is correct.

• The movement was highly organized; Dadu Mian established a parallel government and appointed Khalifas (deputies) to look after the interests of the Faraizis in different villages, effectively challenging British authority and Zemindari control.

Additional Information

• Haji Shariatullah: He spent about 20 years in Mecca, where he was influenced by the Wahhabi ideology. Upon his return to India in 1818, he aimed to purge Islam of un-Islamic practices and superstitions that had crept into the Bengali Muslim society.

• Dadu Mian's Contributions: He was a brilliant strategist who divided East Bengal into "halqas" (circles) for better administration. Under his leadership, the Faraizis formed a paramilitary force armed with clubs (lathis) to resist the Zemindars. He was arrested multiple times by the British Government for his rebellious activities and eventually died in 1862.

• Other Options Context:

• Titu Mir: He led the Narkelberia Uprising (1831) in West Bengal. While he also fought against Zemindars and Indigo planters and was influenced by Syed Ahmad Barelvi, he was not the primary leader of the Faraizi Movement.

• Syed Ahmad Barelvi: He was the founder of the Wahabi Movement in India (centered in Patna and the North-West Frontier Province), which was distinct from the Faraizi movement of Bengal.

• Kunwar Singh and Amar Singh: These were prominent leaders from Bihar (Jagdishpur) during the Great Revolt of 1857. They were not associated with the Faraizi movement of the 1830s.

• Sidhu Murmu and Kanhu Murmu: They were the primary leaders of the Santhal Rebellion (1855-1856) in the Rajmahal Hills, fighting against British exploitation and the Diku (outsider) system.

Important Points

• The Faraizi Movement is considered one of the earliest agrarian uprisings in India that combined religious fervor with socio-economic grievances.

• It specifically targeted the unholy alliance between the British East India Company and the local landlords who exploited the Muslim and Hindu peasantry alike.

• By 1848, the movement had gained such momentum that the British had to take stern military and legal actions to suppress the activities of Dadu Mian and his followers.

• The movement eventually merged with the broader Wahabi sentiment in India after the mid-19th century but left a lasting legacy of peasant resistance in Bengal.

Q47. Answer: (c) Neither conclusion (I) nor (II) follows

Given Statements:

All gardens are forests.

All forests are meadows.

No garden is a park.

The least possible Venn diagram shows:

Conclusions:

I. No forest is a park – False (Only gardens are definitely not parks; forests outside gardens may still be parks).

II. No meadow is a park – False (Only gardens are excluded from parks; meadows outside forests/gardens may overlap with parks).

So, neither conclusion I nor II follows.

Hence, the correct answer is Option 3.

Q48. Answer: (d) 5/64

Shortcut Trick

=> Convert all to fractions:

=> 5 1/6 = 31/6, 6.2 = 31/5, 0.75 = 3/4

=> Expression = (31/6) ÷ (31/5) × (3/4) ÷ 8

=> Cancel 31 → (5/6) × (3/4) ÷ 8

=> = (5×3)/(6×4×8) = 15/192 = 5/64

Therefore Answer = 5/64

Alternate Method

Given Expression:

=> 5 1/6 ÷ 6.2 × 0.75 ÷ (1/5 × 40)

Step 1: Convert to fractions

=> 5 1/6 = 31/6

=> 6.2 = 31/5

=> 0.75 = 3/4

=> (1/5 × 40) = 8

Step 2: Substitute

=> = (31/6) ÷ (31/5) × (3/4) ÷ 8

Step 3: Simplify

=> = (31/6) × (5/31) × (3/4) × (1/8)

=> Cancel 31

=> = (5 × 3)/(6 × 4 × 8)

=> = 15/192

=> = 5/64

Therefore Final Answer: 5/64

Additional Information

1. BODMAS Rule: Solve brackets first, then division/multiplication left to right
2. Decimal to Fraction: 0.75 = 3/4, 6.2 = 31/5
3. Division Rule: a ÷ b = a × (1/b)
4. Simplification Tip: Cancel common terms early

Q49. Answer: (d) Ministry of Electronics and Information Technology (MeitY)

The correct answer is Ministry of Electronics and Information Technology (MeitY).

Key Points

• The Ministry of Electronics and Information Technology (MeitY) is the primary government body in India responsible for formulating and implementing policies related to Information Technology, Cybersecurity, and Online Safety. As of December 2025, it continues to lead the regulatory framework for digital safety, including children's protection in cyberspace. Hence, statement 4 is correct.

• MeitY administers the Information Technology Act, 2000, which serves as the legal foundation for dealing with cybercrimes. Specifically, the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, mandate that social media platforms and intermediaries must take proactive steps to identify and remove Child Sexual Abuse Material (CSAM) and provide a safe digital environment.

• The ministry is instrumental in the Stay Safe Online campaign, which was a significant initiative launched during India’s G20 Presidency in 2023. This program aims to sensitize citizens, especially children and students, about the risks of the internet and the best practices for maintaining cyber hygiene.

• MeitY also oversees the Indian Computer Emergency Response Team (CERT-In), which serves as the national agency for incident response. CERT-In issues advisories regarding online vulnerabilities that could target educational institutions and minors, ensuring technical safeguards are in place.

• While the Ministry of Home Affairs handles the National Cyber Crime Reporting Portal, the regulatory guidelines that intermediaries (like Google, Meta, and X) must follow to protect children are governed by MeitY. Hence, statement 1 is incorrect.

Additional Information

• Information Technology Act, 2000:

• This Act is the primary law in India for cybersecurity. Section 67B specifically deals with the punishment for publishing or transmitting material depicting children in sexually explicit acts in electronic form. It provides for stringent imprisonment and fines for first and subsequent convictions.

• Indian Cyber Crime Coordination Centre (I4C):

• Operated under the Ministry of Home Affairs (MHA), this center was established in 2018-19 to provide a comprehensive

YourMockTest.com — Free Study Material

framework for law enforcement agencies to combat cybercrime. It manages the portal where victims can report child pornography and online harassment.

• NCPCR and Ministry of Women and Child Development:

• The National Commission for Protection of Child Rights (NCPCR), under the Ministry of Women and Child Development, works on the implementation of the POCSO Act, 2012. While they deal with the legal protection and rehabilitation of children, the technological regulation of the web remains with MeitY. Hence, statement 2 is incorrect.

• Ministry of Education Initiatives:

• The Ministry of Education focuses on digital literacy through platforms like DIKSHA and PM eVIDYA. While they promote safe internet usage within the school curriculum, they are not the primary implementing agency for online safety infrastructure. Hence, statement 3 is incorrect.

Important Points

• Cyber Swachhta Kendra: This is a Botnet Cleaning and Malware Analysis Centre operated by CERT-In under MeitY. It helps in securing the digital ecosystem by providing free tools to citizens and organizations to remove viruses and malware from computers and mobile phones.

• Data Protection: The Digital Personal Data Protection (DPDP) Act, 2023, which is implemented by MeitY, contains specific provisions for children's data. It prohibits data fiduciaries from processing personal data that is likely to cause detrimental effects on the well-being of a child and restricts targeted advertising directed at children.

• Global Context: India is a signatory to various international resolutions regarding child safety. MeitY represents India in global forums like the Internet Governance Forum (IGF) to discuss cross-border cyber threats targeting minors.

Q50. Answer: (b) Father's Father's Brother

Family Chart:

Decoding the Symbols:

Symbol	**•**	**−**	**x**	**÷**
Meaning	Brother	Father	Husband	Mother

Given: P + Q – R x S ÷ T

It means: P is the brother of Q, Q is the father of R, R is the husband of S, S is the mother of T.

Here, P is related to T as Father's Father's Brother.

Hence, the correct answer is "Option 2".

Q51. Answer: (c) 800%

Shortcut Trick

=> 1 dozen = 12 articles

=> CP per article = 100 ÷ 12

=> SP per article = 75

=> Profit% = [(75 − 100/12) ÷ (100/12)] × 100

=> = [(900 − 100)/100] × 100 = 800%

Therefore Answer = 800%

Alternate Method

Given:

=> Total dozens = 62

=> CP per dozen = 100

=> SP per article = 75

Calculation:

=> Total articles = 62 × 12 = 744

=> Total CP = 62 × 100 = 6200

=> Total SP = 744 × 75 = 55800

=> Profit = 55800 − 6200 = 49600

=> Profit% = (49600 ÷ 6200) × 100

=> = 800%

Therefore Final Answer: 800%

Additional Information

1. Unit Conversion: 1 dozen = 12 units

2. Profit Formula: Profit% = (Profit ÷ CP) × 100
3. Total Method: Always convert everything to same unit
4. Shortcut: Compare per unit CP and SP directly

Q52. Answer: (b) 34.44

Shortcut Trick
Identify the modal class with the highest frequency: 30-40 (Frequency = 20)
Direct formula: Mode = L + [(f1 − f0) ÷ (2f1 − f0 − f2)] × h
Mode = 30 + [(20 − 12) ÷ (40 − 12 − 10)] × 10
Mode = 30 + (8 ÷ 18) × 10 = 30 + 4.44 = 34.44
Therefore The correct answer is 34.44.
Alternate Method
Given:
Frequencies for respective classes: 0-10 → 5, 10-20 → 8, 20-30 → 12, 30-40 → 20, 40-50 → 10
Formula Used:
Mode = L + [(f1 − f0) ÷ (2f1 − f0 − f2)] × h
Calculations:
=> The highest frequency is 20, so the Modal class is 30-40.
=> Lower limit of modal class (L) = 30
=> Frequency of modal class (f1) = 20
=> Frequency of preceding class (f0) = 12
=> Frequency of succeeding class (f2) = 10
=> Class size (h) = 10
=> Mode = 30 + [(20 − 12) ÷ (2 × 20 − 12 − 10)] × 10
=> Mode = 30 + [8 ÷ (40 − 22)] × 10
=> Mode = 30 + [8 ÷ 18] × 10
=> Mode = 30 + (80 ÷ 18)
=> Mode = 30 + 4.444...
=> Mode ≈ 34.44
Therefore The correct answer is 34.44.
Additional Information
Median of Grouped Data
Median = L + [(N ÷ 2 − CF) ÷ f] × h, where CF is the cumulative frequency of the preceding class.
Empirical Relationship
Mode = 3 × Median − 2 × Mean (useful for establishing relationships between measures of central tendency).
Mean of Grouped Data
Mean = $\Sigma f_i x_i \div \Sigma f_i$, where x_i represents the class mark (midpoint) of each interval.

Q53. Answer: (c) 42336 cm²

Shortcut Trick
=> TSA of cube = $6a^2$
=> = 6×84^2
=> $84^2 = (80+4)^2 = 6400 + 640 + 16 = 7056$
=> TSA = $6 \times 7056 = 42336$ cm²
Therefore Answer = 42336 cm²
Alternate Method
Given:
=> Side of cube (a) = 84 cm
Formula:
=> Total Surface Area = $6a^2$
84 cm
Calculation:

=> TSA = 6 × 84 × 84
=> = 6 × 7056
=> = 42336 cm²
Therefore Final Answer: 42336 cm²
Additional Information
1. Cube TSA: $6a^2$
2. Cube Volume: a^3
3. Face Count: Cube has 6 equal square faces
4. Shortcut: $(a+b)^2 = a^2 + 2ab + b^2$

Q54. Answer: (d) 155

The logic followed here is:
Logic: Second number = Number + constant value
52 → 144
=> 52 + 92 = 144
81 → 173
=> 81 + 92 = 173
So, constant addition = 92
Now, applying the same pattern for 63:
=> 63 + 92 = 155
Hence, the correct answer is Option 4.

Q55. Answer: (a) 23 m

Shortcut Trick
=> Angle with ground = 60°
=> cos 60° = Base / Ladder = 1/2
=> Ladder = Base ÷ (1/2) = 11.5 × 2
=> Ladder = 23 m
Therefore Answer = 23 m
Alternate Method
Given:
=> Base = 11.5 m
=> Angle = 60°
Formula:
=> cos θ = Base / Hypotenuse
11.5 m Wall Ladder 60°
Calculation:
=> cos 60° = 11.5 / Ladder
=> 1/2 = 11.5 / Ladder
=> Ladder = 11.5 × 2
=> Ladder = 23 m
Therefore Final Answer: 23 m
Additional Information
1. Trigonometric Ratio: cos θ = Base / Hypotenuse
2. Standard Value: cos 60° = 1/2
3. Height & Distance: Forms a right-angled triangle
4. Hypotenuse: Longest side opposite 90°

Q56. Answer: (a) Three

Given: T, U, V, W, X, Y and Z have engagements from Monday to Sunday.
V has engagement on the third day of the week.
Only one person has engagement after Y.
Only three people have engagement between V and X.

YourMockTest.com — Free Study Material

Only one person has engagement between W and Z.

T has engagement immediately after Z.

Day	Person
Monday	U
Tuesday	W
Wednesday	V
Thursday	Z
Friday	T
Saturday	X
Sunday	Y

Now, people between U and T: 3 people

Hence, the correct answer is Option 1.

Q57. Answer: (c) Speed

The correct answer is Speed.

Key Points

• Speed is the fundamental characteristic of a computer that allows it to process millions of instructions per second (MIPS). While a human might take weeks to perform a complex mathematical calculation, a computer can complete it in a fraction of a second. Hence, the characteristic that enables extremely complex calculations within seconds is Speed.

• The speed of a modern computer is typically measured in Microseconds (10^-^6), Nanoseconds (10^-^9), and even Picoseconds (10^-12). This high-speed processing is driven by the Central Processing Unit (CPU), which operates based on a system clock measured in Gigahertz (GHz).

• In the context of Supercomputers, speed is measured in FLOPS (Floating-Point Operations Per Second). For example, as of 2024, the world's fastest supercomputers operate at Exascale speeds, performing more than a quintillion (10¹^8) calculations per second.

• This rapid processing is essential for high-end applications such as weather forecasting, nuclear simulations, cryptography, and complex financial modeling.

Additional Information

• Versatility:

• Versatility refers to the ability of a computer to perform different types of tasks simultaneously or sequentially. For instance, a user can use a computer to write a document, listen to music, and browse the internet at the same time.

• It enables the computer to be used in various fields like education, business, medicine, and engineering by simply changing the software or instructions. Hence, this statement describes task flexibility rather than calculation speed.

• Accuracy:

• Accuracy ensures that the computer performs calculations with 100% correctness, provided the input data is correct. If a computer produces a wrong result, it is usually due to human error in data entry or faulty programming.

• This principle is known as GIGO (Garbage In, Garbage Out). Computers do not make mathematical mistakes on their own because their internal logic is based on binary electronic circuits. Hence, this statement refers to the quality of the result, not the time taken.

• Automation:

• Automation is the characteristic that allows a computer to perform a series of tasks without human intervention once the initial instructions (program) are given.

• It is widely used in industrial manufacturing, automated emails, and operating systems to manage background processes. Hence, this statement refers to self-execution capabilities.

• Diligence:

• Unlike humans, computers do not suffer from tiredness, boredom, or lack of concentration. They can work for hours or days continuously and still maintain the same speed and accuracy as the first second.

• This makes them ideal for repetitive tasks in data processing and monitoring systems.

Important Points

• Evolution of Speed: The speed of computers has increased exponentially since the first generation (1940s), which used Vacuum Tubes and processed thousands of instructions, to the fifth generation, which utilizes Ultra Large Scale Integration (ULSI) and Artificial Intelligence.

YourMockTest.com — Free Study Material

• Clock Speed: The Clock Speed of a computer's processor determines how many cycles it can execute per second. A 3.5 GHz processor can perform 3.5 billion cycles per second.

• Storage Capacity: Along with speed, a computer's ability to store large volumes of data in Hard Disk Drives (HDD) or Solid State Drives (SSD) in terms of Terabytes (TB) or Petabytes (PB) complements its calculating power by providing instant access to information.

• Global Context: Countries like the USA, China, and Japan lead in the development of high-speed computing technology, with India also contributing through its National Supercomputing Mission (NSM) and indigenous supercomputers like PARAM Siddhi-AI.

Q58. Answer: (c) Article 32

The correct answer is Article 32.

Key Points

• Article 32 of the Indian Constitution is known as the Right to Constitutional Remedies, which allows individuals to move the Supreme Court for the enforcement of Fundamental Rights.

• It grants the Supreme Court the power of Judicial Review, enabling it to examine the constitutionality of legislative enactments and executive orders. Hence, statement 3 is correct.

• Dr. B.R. Ambedkar famously described Article 32 as the "Heart and Soul" of the Constitution because, without this remedy, all other rights are meaningless.

• Under this Article, the Supreme Court has the authority to issue five types of writs: Habeas Corpus, Mandamus, Prohibition, Certiorari, and Quo-Warranto to protect the rights of citizens.

• The power of Judicial Review is considered a "Basic Structure" of the Constitution, as established in the landmark Kesavananda Bharati case (1973), meaning it cannot be abridged even by a Constitutional Amendment.

Additional Information

• Article 30:

• This Article provides the right of minorities (whether based on religion or language) to establish and administer educational institutions of their choice.

• It ensures that the State shall not discriminate against any educational institution on the ground that it is under the management of a minority. Hence, statement 1 is incorrect.

• Article 124:

• This Article deals with the establishment and constitution of the Supreme Court of India.

• It specifies that there shall be a Supreme Court consisting of a Chief Justice of India and other judges, and outlines the appointment, qualification, and removal process of judges. Hence, statement 2 is incorrect.

• Article 72:

• This Article grants the President of India the power to grant pardons, reprieves, respites, or remissions of punishment or to suspend, remit, or commute the sentence of any person convicted of any offence.

• This power extends to cases involving court-martial, offences against Union laws, and death sentences. Hence, statement 4 is incorrect.

Important Points

• Source of Judicial Review: The concept of Judicial Review in India is inspired by the Constitution of the United States of America.

• Article 13: This is another crucial article related to Judicial Review, declaring that any law which is inconsistent with or in derogation of Fundamental Rights shall be void.

• Article 226: Similar to Article 32, this article empowers the High Courts to issue writs for the enforcement of Fundamental Rights and for "any other purpose."

• Judiciary's Independence: The power of Judicial Review maintains the supremacy of the Constitution and ensures the separation of powers between the Legislature, Executive, and Judiciary.

• Scope: While Article 32 is itself a Fundamental Right (meaning one can go directly to the Supreme Court), Article 226 is a Constitutional Right but offers a wider scope as it covers non-fundamental legal rights as well.

Q59. Answer: (d) 80%

Shortcut Trick

Amount = 5P => Interest = 4P

In 5 years, interest = 4P

=> Per year interest = 4P ÷ 5 = 0.8P

=> Rate = 0.8P of P = 80%

Therefore Answer = 80%

YourMockTest.com — Free Study Material

Alternate Method

Given:

=> Time = 5 years

=> Amount = 5P

Formula:

=> SI = (P × R × T) ÷ 100

Calculations:

=> SI = 5P − P = 4P

=> 4P = (P × R × 5) ÷ 100

=> 4 = (R × 5) ÷ 100

=> R = (4 × 100) ÷ 5 = 80%

Final Answer: 80%

Additional Information

1. Simple Interest Formula: SI = (P × R × T) ÷ 100

2. Amount Relation: Amount = Principal + Interest

3. Multiplication Concept: If amount becomes n times, then SI = (n − 1)P

4. Shortcut Tip: Rate = [(Increase factor − 1) ÷ Time] × 100

Q60. Answer: (b) Rise in trade restrictions

The correct answer is Rise in trade restrictions.

Key Points

• LPG Reforms (Liberalization, Privatization, and Globalization) were introduced in India in 1991 to address a severe Balance of Payments (BoP) crisis. These reforms aimed to modernize the Indian economy and integrate it with the global market.

• Boost in international partnerships: Globalization facilitated the inflow of Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII), leading to stronger ties with international organizations and countries. Hence, this is an advantage of the reforms.

• Rise in trade restrictions: The core objective of Liberalization was to remove licensing, quotas, and tariffs that acted as barriers to trade. The reforms actually led to a fall in trade restrictions rather than a rise. Hence, this is NOT an advantage and is the correct answer.

• Adoption of advanced technologies: Opening up the economy allowed Indian industries to access high-end technology and global best practices from multinational corporations (MNCs). Hence, this is an advantage of the reforms.

• Expansion of the private sector: Through Privatization, the government reduced its role in Public Sector Undertakings (PSUs) via disinvestment, allowing the private sector to lead growth in various industries. Hence, this is an advantage of the reforms.

Additional Information

• Liberalization: This process involved the abolition of industrial licensing (except for a few hazardous or strategic industries), de-reservation of products for small-scale industries, and deregulation of the financial sector. It allowed market forces to determine prices and production levels.

• Privatization: It refers to the transfer of ownership, management, and control of public sector enterprises to the private sector. This was achieved through disinvestment and the strategic sale of government equity to improve efficiency and profitability.

• Globalization: This is the outcome of policies aimed at integrating the national economy with the world economy. It involves the free flow of capital, labor, and services across borders. The New Economic Policy of 1991 made the Indian Rupee partially convertible.

• Background of 1991 Reforms: The reforms were initiated under the leadership of Prime Minister P.V. Narasimha Rao and Finance Minister Dr. Manmohan Singh. India had to approach the International Monetary Fund (IMF) and the World Bank for a loan of $7 billion to manage the foreign exchange reserves, which had dropped to a level only sufficient for two weeks of imports.

• Impact on the Economy: Post-reforms, India's GDP growth rate accelerated, inflation was brought under control, and the service sector saw exponential growth, especially in the IT and Telecommunications industries.

Important Points

• Industrial Policy 1991: This policy dismantled the "License Raj" and significantly reduced the number of industries reserved for the public sector from 17 to 8 (and eventually down to 2: Atomic Energy and Railway Operations).

• Foreign Exchange Management: The Foreign Exchange Regulation Act (FERA) was replaced by the more liberal Foreign Exchange Management Act (FEMA) in 1999 to facilitate external trade and payments.

• Tax Reforms: To stimulate the economy, the government implemented rationalization of direct taxes and simplified the indirect tax structure, which eventually paved the way for the Goods and Services Tax (GST) in 2017.

• Fiscal Policy: The reforms emphasized reducing the fiscal deficit to ensure macroeconomic stability. This was later institutionalized through the Fiscal Responsibility and Budget Management (FRBM) Act, 2003.

YourMockTest.com — Free Study Material

Q61. Answer: (d) Defence, foreign affairs, and citizenship

The correct answer is Defence, foreign affairs, and citizenship.

Key Points

• The Seventh Schedule of the Constitution of India defines and specifies the allocation of powers and functions between the Union and the States. It contains three lists: the Union List, the State List, and the Concurrent List.

• The Union List (List I) consists of subjects of national importance where the Parliament of India has exclusive power to make laws. Originally, it contained 97 subjects, but it currently has 100 subjects.

• Defence of India, including the preparation for defence and all such acts as may be conducive in times of war to its prosecution, is a primary subject under the Union List. Hence, the mention of Defence in the option makes it correct.

• Foreign Affairs, including all matters which bring the Union into relation with any foreign country, and Citizenship, naturalization, and aliens, are also part of the Union List. Hence, the statement containing Defence, foreign affairs, and citizenship is correct.

• Police, public health, and agriculture are subjects that fall under the State List (List II), meaning the State Legislatures generally have the power to make laws on these topics. Hence, this statement is incorrect.

• Education, forests, and marriage are subjects under the Concurrent List (List III), where both the Parliament and State Legislatures can legislate. Hence, this statement is incorrect.

• Local government, markets, and fairs are subjects included in the State List, as they pertain to local administrative and economic functions. Hence, this statement is incorrect.

Additional Information

• Article 246 of the Indian Constitution deals with the legislative subject matter of laws made by Parliament and by the Legislatures of States, referring directly to the Seventh Schedule.

• The Union List (List I): It includes subjects like Atomic Energy, Railways, Post and Telegraphs, Banking, Insurance, Stock Exchanges, and Inter-state trade and commerce. These require a uniform policy across the country.

• The State List (List II): It includes 61 subjects (originally 66) such as Public order, Prisons, Water, Land, and Fisheries. These subjects are of regional or local importance.

• The Concurrent List (List III): It includes 52 subjects (originally 47) such as Criminal law, Trade unions, Price control, and Succession. Through the 42nd Amendment Act, 1976, five subjects were moved from the State List to the Concurrent List: Education, Forests, Weights and Measures, Protection of Wild Animals and Birds, and Administration of Justice.

• Residuary Powers: Under Article 248, the Parliament has exclusive power to make any law with respect to any matter not enumerated in the Concurrent List or State List. This includes Cyber laws.

Important Points

• In case of a conflict between a Central law and a State law on a subject in the Concurrent List, the Central law usually prevails, ensuring the supremacy of the Union.

• The Sarkaria Commission (set up in 1983) and the Punchhi Commission (set up in 2007) have both studied the distribution of powers in the Seventh Schedule to strengthen Centre-State relations in India.

• The Constitution provides for the Parliament to legislate on State List subjects under exceptional circumstances, such as during a National Emergency (Article 250) or if the Rajya Sabha passes a resolution in the national interest (Article 249).

Q62. Answer: (a) 33

BODMAS Table:

Given equation: 9 B 4 C 6 D 45 A 5 = ?

Logic: A = ÷, B = ×, C = +, D = −

Now, replacing the symbols:

=> 9 × 4 + 6 − 45 ÷ 5

=> 9 × 4 + 6 − (45 ÷ 5)

=> 36 + 6 − 9

=> 42 − 9

=> 33

Hence, the correct answer is Option 1.

Q63. Answer: (c) 150%, more

Shortcut Trick

160% of 75% of A = 1.6 × 0.75 A = 1.2A

2 times of 150% of B = 2 × 1.5B = 3B

=> 1.2A = 3B

=> A/B = 3 ÷ 1.2 = 2.5

=> A = 2.5B => 150% more than B

Therefore Answer = A is 150% more than B

Alternate Method

Given:

=> 160% of 75% of A = 2 × 150% of B

Formula:

=> x% = x/100

Calculations:

=> 160% of 75% of A = (160/100) × (75/100) × A = (1.6 × 0.75)A = 1.2A

=> 150% of B = (150/100)B = 1.5B

=> RHS = 2 × 1.5B = 3B

=> 1.2A = 3B

=> A = 3B ÷ 1.2 = 2.5B

=> Increase = (2.5B − B) = 1.5B

=> % increase = (1.5B ÷ B) × 100 = 150%

Final Answer: A is 150% more than B

Additional Information

1. Percentage Conversion: x% = x/100 helps simplify multi-layer percentage problems
2. Ratio Approach: Convert equation into A:B to compare directly
3. Increase Formula: % change = (Difference ÷ Original) × 100
4. Shortcut Tip: Convert percentages to decimals early to reduce steps

Q64. Answer: (c) Europe

The correct answer is Europe.

Key Points

• The Equator is an imaginary line circling the Earth at 0 degrees latitude, equidistant from the North Pole and the South Pole, dividing the planet into the Northern Hemisphere and the Southern Hemisphere.

• Africa is the only continent that is crossed by the Equator, the Tropic of Cancer, and the Tropic of Capricorn. The Equator passes through several African nations, including Gabon, Congo, Democratic Republic of Congo, Uganda, Kenya, and Somalia. Hence, Africa is crossed by the Equator.

• South America is also crossed by the Equator in its northern part. It passes through countries such as Ecuador, Colombia, and Brazil. Hence, South America is crossed by the Equator.

• Asia is crossed by the Equator, although the line does not pass through the Asian mainland. It crosses the island territories of Indonesia (specifically islands like Sumatra, Borneo, and Sulawesi) and the Maldives in the Indian Ocean. Hence, Asia is crossed by the Equator.

• Europe is located entirely in the Northern Hemisphere. Its southernmost point on the mainland is at a latitude of approximately 36 degrees North (Tarifa, Spain). Because it is situated far to the north of the 0-degree latitude, it is not touched or crossed by the Equator. Hence, the statement that Europe is NOT crossed by the Equator is correct.

Additional Information

• The Equator's Geography: The total length of the Equator is about 40,075 kilometers (24,901 miles). About 78.8% of the Equator passes through water (oceans) and only 21.2% passes through land.

• Climate and Daylight: Regions located on the Equator experience a tropical climate where there is little seasonal variation in temperature. Daylight and nighttime hours are nearly equal (approximately 12 hours each) throughout the year.

• Earth's Shape: Because the Earth rotates, it is not a perfect sphere but an oblate spheroid, meaning it bulges at the Equator. Consequently, the Earth's diameter is widest at the Equator.

• Gravity: Due to the equatorial bulge, the surface of the Earth at the Equator is farther from the center of the planet than at the poles, resulting in slightly weaker gravitational pull at the 0-degree latitude.

• Other Major Latitudes:

• Tropic of Cancer (23.5° N): Passes through North America (Mexico), Africa, and Asia (including India).

• Tropic of Capricorn (23.5° S): Passes through South America, Africa, and Australia.

• Arctic Circle (66.5° N): Passes through North America, Europe (Scandinavia and Russia), and Asia.

Important Points

• List of Countries on the Equator: There are 13 countries that lie on the Equator: Ecuador, Colombia, Brazil, Sao Tome and Principe, Gabon, Republic of the Congo, Democratic Republic of the Congo, Uganda, Kenya, Somalia, Maldives, Indonesia, and

YourMockTest.com — Free Study Material

Kiribati.

• Prime Meridian vs. Equator: While the Equator is the 0-degree latitude, the Prime Meridian is the 0-degree longitude. The Prime Meridian does cross Europe (passing through the United Kingdom, France, and Spain), unlike the Equator.

• Highest Point: The highest point on the Equator is located on the southern slopes of Volcán Cayambe in Ecuador, reaching an elevation of 4,690 meters. It is the only place on the Equator where snow can be found on the ground.

• Global Navigation: The Equator serves as the fundamental reference point for the Geographic Coordinate System, used in GPS and mapping technologies worldwide.

Q65. Answer: (b) 60

Shortcut Trick

Total food = 100 × 27 = 2700 man-days

Remaining men = 100 − 55 = 45

=> Days = 2700 ÷ 45 = 60

Therefore Answer = 60 days

Alternate Method

Given:

=> 100 men → 27 days

=> Remaining men = 45

Formula:

=> Men × Days = Constant

Calculations:

=> 100 × 27 = 45 × D

=> 2700 = 45D

=> D = 2700 ÷ 45 = 60

Final Answer: 60 days

Additional Information

1. Man-Days Concept: Total work = Men × Days (constant if work is fixed)

2. Inverse Relation: More men → fewer days, fewer men → more days

3. LCM Method Tip: Always convert into total work units for faster solving

4. Exam Shortcut: Directly divide total man-days by new men count

Q66. Answer: (a) District Court

The correct answer is District Court.

Key Points

• The District Court is the highest judicial authority at the district level in India. It exercises original and appellate jurisdiction over both civil and criminal matters. Hence, the statement regarding the District Court as the highest authority is correct.

• The presiding officer of this court is the District Judge. When the judge hears civil cases, they are referred to as the District Judge, and when presiding over criminal cases, they are designated as the Sessions Judge.

• According to Article 233 of the Constitution of India, the appointment, posting, and promotion of District Judges in any State are made by the Governor of the State in consultation with the High Court.

• The District Judge has the legal power to impose any sentence authorized by law, including life imprisonment and the death penalty. However, any death sentence awarded by a Sessions Court must be confirmed by the High Court before it can be executed.

• The District Court serves as the principal civil court of original jurisdiction in the district, alongside its status as a court of appeal for cases decided by subordinate courts like the Munsif Court or Sub-Judge Court.

Additional Information

• High Court:

• Under Article 214, every State in India shall have a High Court. It is the highest judicial body at the State level.

• It exercises superintendence and control over all subordinate courts and tribunals within its territorial jurisdiction.

• A High Court is a Court of Record and has the power to punish for its own contempt.

• Family Court:

• These were established under the Family Courts Act, 1984, to provide a specialized forum for settling disputes related to marriage, divorce, custody, and maintenance.

• They aim to promote conciliation and speedy settlement of family-related issues rather than conventional litigation.

YourMockTest.com — Free Study Material

• Munsif Court:

• This is the lowest tier of the civil judiciary. A Munsif (or Civil Judge Junior Division) handles civil cases of small pecuniary value.

• The monetary limits (pecuniary jurisdiction) of these courts are determined by the respective State Governments.

• Judicial Hierarchy:

• The Indian Judiciary is an integrated system with the Supreme Court at the apex (national level), followed by High Courts (state level), and Subordinate Courts (district and lower levels).

• The subordinate judiciary is governed by Articles 233 to 237 of the Indian Constitution.

Important Points

• Eligibility for District Judge: To be appointed as a District Judge, a person must have been an advocate or a pleader for at least seven years and should not already be in the service of the Union or the State.

• Separation of Power: Article 50 of the Constitution of India directs the State to take steps to separate the judiciary from the executive in the public services of the State.

• Criminal Jurisdiction: Below the Sessions Judge, there are Chief Judicial Magistrates (CJM) and Judicial Magistrates of First and Second Class. A CJM can sentence a person to imprisonment for a term up to seven years.

• Administrative Functions: Besides judicial duties, the District Judge acts as the administrative head of all civil and criminal courts in the district, overseeing budgeting, staffing, and infrastructure.

Q67. Answer: (b) 25 km towards east

Given:

Logan starts from Point A and drives 18 km towards West.

He turns left → 15 km South.

He turns right → 12 km West.

He turns right → 15 km North.

He turns right → 5 km East and reaches Point P.

To reach A from P → move 25 km towards East.

Hence, the correct answer is Option 2.

Q68. Answer: (d) 64 km/h

Shortcut Trick

Distance ratio = 2 : 3 : 1 (total = 6 parts)

=> Speeds = 48, 72, 96 = 48(1, 1.5, 2)

=> Time ratio = Distance/Speed = 2/1 : 3/1.5 : 1/2 = 2 : 2 : 0.5

=> Total time units = 4.5, total distance units = 6

=> Avg speed = 6 ÷ 4.5 = 4/3 of 48 = 64 km/h

Therefore Answer = 64 km/h

Alternate Method

Given:

=> Total distance = 480 km

=> Distance ratio = 2 : 3 : 1

=> Speeds = 48, 72, 96 km/h

Calculations:

=> Total parts = 6

=> Distances = 160 km, 240 km, 80 km

=> Time1 = 160 ÷ 48 = 10/3 h

=> Time2 = 240 ÷ 72 = 10/3 h

=> Time3 = 80 ÷ 96 = 5/6 h

=> Total time = 10/3 + 10/3 + 5/6

=> = 20/3 + 5/6 = 40/6 + 5/6 = 45/6 = 7.5 h

=> Average speed = 480 ÷ 7.5 = 64 km/h

Final Answer: 64 km/h

Additional Information

1. Average Speed Formula: Average Speed = Total Distance ÷ Total Time

2. Ratio Method: When distances are in ratio, assume total parts to simplify calculation

3. Time Calculation: Time = Distance ÷ Speed

4. Exam Tip: Convert speeds into multiples to simplify ratio-based problems

Q69. Answer: (b) consultation with the Election Commission

The correct answer is consultation with the Election Commission.

Key Points

• According to Article 324(4) of the Constitution of India, before each general election to the House of the People (Lok Sabha) or to the Legislative Assembly of a State, the President may appoint Regional Commissioners.

• The President exercises this power only after consultation with the Election Commission to ensure that the commission has adequate assistance to perform its duties effectively. Hence, the statement regarding consultation with the Election Commission is correct.

• The primary role of these Regional Commissioners is to assist the Election Commission in the superintendence, direction, and control of the preparation of electoral rolls and the conduct of elections.

• The Constitution does not mandate the appointment of Regional Commissioners after consultation with the Chief Justice of India, the Prime Minister, or the Speaker of the Lok Sabha. Hence, those options are incorrect.

• The Election Commission is a permanent and independent body established by the Constitution of India directly under Article 324 to ensure free and fair elections in the country.

Additional Information

• Article 324: This Article provides for the superintendence, direction, and control of elections to be vested in an Election Commission. It covers elections to Parliament, the State Legislatures, and the offices of the President and Vice-President.

• Composition of the Election Commission: The Election Commission shall consist of the Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may from time to time fix.

• Historical Context: From 1950 to 15th October 1989, the Election Commission functioned as a single-member body consisting only of the Chief Election Commissioner. On 16th October 1989, the President appointed two more election commissioners to cope with the increased work.

• Service Conditions: The conditions of service and tenure of office of the Election Commissioners and the Regional Commissioners are determined by the President. As per the latest Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023, they hold office for a term of 6 years or until they attain the age of 65 years, whichever is earlier.

• Independence: To maintain independence, the Chief Election Commissioner cannot be removed from office except in a manner similar to a Judge of the Supreme Court.

Important Points

• Removal of Regional Commissioners: According to Article 324(5), any other Election Commissioner or a Regional Commissioner shall not be removed from office except on the recommendation of the Chief Election Commissioner. This provision protects them from arbitrary removal by the executive.

• Staffing: The President or the Governor of a State shall, when so requested by the Election Commission, make available to the Election Commission or to a Regional Commissioner such staff as may be necessary for the discharge of the functions conferred on the Commission.

• Elections Conducted: It is important to note that the Election Commission of India is not concerned with the elections to Panchayats and Municipalities in the states. For this, the Constitution provides for a separate State Election Commission under Articles 243K and 243ZA.

• Administrative Powers: The Commission has the power to advise the President on matters relating to the disqualifications of members of Parliament and advise the Governor on matters relating to the disqualifications of members of State Legislatures.

Q70. Answer: (a) 29

Shortcut Trick

Prime factors: $24 = 2^3 \times 3$, $36 = 2^2 \times 3^2$, $72 = 2^3 \times 3^2$

Take minimum exponents:

=> $A = 2^3 = 8$, $B = 2^2 \times 3 = 12$, $C = 3^2 = 9$

Check: LCM(A,B)=24, LCM(B,C)=36, LCM(C,A)=72 Yes

=> Sum = 8 + 12 + 9 = 29

Therefore Answer = 29

Alternate Method

Given:

=> $LCM(A,B) = 24 = 2^3 \times 3$

=> $LCM(B,C) = 36 = 2^2 \times 3^2$

=> LCM(C,A) = 72 = $2^3 \times 3^2$

Approach:

=> Assign minimum prime powers satisfying all LCM conditions

Construction:

=> From A & B: max power of 2 is 3, so A has 2^3, B has 2^2

=> From B & C: max power of 3 is 2, so C has 3^2, B has 3^1

=> From A & C: ensure both 2^3 and 3^2 appear

=> A = 2^3 = 8

=> B = $2^2 \times 3$ = 12

=> C = 3^2 = 9

=> Sum = 8 + 12 + 9 = 29

Final Answer: 29

Additional Information

1. LCM Rule: LCM takes highest power of each prime among numbers
2. Minimization Trick: Assign lowest possible powers that still satisfy all LCMs
3. Prime Distribution: Distribute primes across variables carefully to match pairwise LCM
4. Exam Tip: Always start from prime factorization in LCM-based problems

Q71. Answer: (c) XHSF

The logic followed here is:

For, DIME → HNIZ

For, LSEU → PXAP

Now, applying the same logic to TCWK:

So, TCWK → XHSF

Hence, the correct answer is Option 3.

Q72. Answer: (b) Arthur Symons

The correct answer is Arthur Symons.

Key Points

• The Golden Threshold is the first collection of poems by the legendary Indian poet Sarojini Naidu, published in 1905 in London.

• The introductory essay to this collection was written by Arthur Symons, who was a prominent British poet, critic, and magazine editor.

• In his introduction, Arthur Symons describes Sarojini Naidu as a poet who possesses an individual voice and praises her ability to express the Eastern spirit through the English language.

• The publication of this book established her reputation as a major lyric poet in both India and England, highlighting her mastery of meter and vivid imagery.

• The collection includes famous poems such as "The Palanquin Bearers", "The Coromandel Fishers", and "Indian Weavers", which reflect the daily life and culture of India.

Additional Information

• Sarojini Naidu (1879–1949): Known as the “Nightingale of India” or “Bharat Kokila”, she was a prolific writer and a key figure in the Indian Independence Movement.

• She was born on February 13, 1879, in Hyderabad.

• In 1925, she became the first Indian woman to serve as the President of the Indian National Congress at its Kanpur Session.

• After Independence, she was appointed as the first woman Governor of an Indian state, serving in the United Provinces (present-day Uttar Pradesh) from 1947 to 1949.

• Edmund Gosse: He was another influential English critic who mentored Sarojini Naidu. While Arthur Symons wrote the introduction to her first book, it was Edmund Gosse who famously advised her to stop writing about English landscapes (like skylarks and robins) and instead focus on Indian themes, landscapes, and folklore.

• W. B. Yeats: A renowned Irish poet and Nobel laureate, Yeats was a contemporary who moved in similar literary circles in London and held high regard for the mystical and rhythmic quality of Naidu's poetry.

• Literary Works: Apart from The Golden Threshold (1905), her other notable poetry collections include The Bird of Time (1912), The Broken Wing (1917), and the posthumously published The Feather of the Dawn (1961).

Important Points

• The Residence: "The Golden Threshold" is also the name of the ancestral home of Sarojini Naidu in Hyderabad. The building

YourMockTest.com — Free Study Material

was later donated to the University of Hyderabad and now houses the Sarojini Naidu School of Arts and Communication.

• Themes of Poetry: Her poetry is characterized by patriotism, nature, and the struggles of common people. She used Western romantic forms but infused them with Indian sensibilities, making her a pioneer of Indo-Anglian literature.

• National Women's Day: In recognition of her contributions to women's rights and literature, her birth anniversary (February 13) is celebrated as National Women's Day in India.

Q73. Answer: (b) United States and European Union

The correct answer is United States and European Union.

Key Points

• The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) manages the Financial Tracking Service (FTS), which is the primary global database for tracking humanitarian aid flows. In the 2025 report, the United States and the European Union (specifically the European Commission's humanitarian aid department) are identified as the top two contributors globally. Hence, the option containing the United States and European Union is correct.

• The United States has consistently maintained its position as the world's largest donor, contributing significant portions of its budget toward emergency food aid, medical supplies, and disaster relief across various continents, including Africa and the Middle East.

• The European Union, acting as a collective body of institutions, ranks second, providing billions in Euros to address crises stemming from conflict and climate change. Their funding often targets multilateral organizations like the World Food Programme (WFP) and UNICEF.

• The United Arab Emirates (UAE) has emerged as a powerhouse in the humanitarian sector, frequently ranking as the top donor relative to its Gross National Income (GNI). In 2025, while the UAE remains a leading global contributor, particularly within the Arab world, it follows the United States and EU in terms of absolute numerical value of funds reported to the FTS.

• Other nations like Germany and the United Kingdom also contribute significantly, but the primary hierarchy in terms of total volume for the start of 2025 remains dominated by the U.S. and European entities.

Additional Information

• UNOCHA and FTS: The Financial Tracking Service (FTS) was established in 1992 to ensure that the international community has a clear, transparent view of where humanitarian money is coming from and where it is going. It tracks both government and private donations.

• UAE's Humanitarian Role: The UAE often directs its aid through the Emirates Red Crescent. Its primary focus areas in recent years include Yemen, Sudan, and Syria. The UAE is noted for being one of the few non-DAC (Development Assistance Committee) countries to consistently rank in the top global donor lists.

• Global Humanitarian Overview (GHO): Every year, UNOCHA releases the Global Humanitarian Overview. For 2025, the report emphasizes a growing funding gap as the number of people requiring assistance has increased due to protracted conflicts and climate-related disasters.

• Types of Aid: Humanitarian aid tracked by UNOCHA includes emergency food security, water, sanitation and hygiene (WASH), health services, and emergency shelter. This is distinct from long-term Official Development Assistance (ODA), which focuses on economic development.

• DAC Donors: Most of the top contributors are members of the OECD Development Assistance Committee (DAC), a group of 32 of the world's major donor nations. The United States, Germany, and Japan are prominent members of this group.

Important Points

• Year 2025 Context: The 2025 fiscal tracking reflects a shift toward anticipatory action, where funds are released before a disaster occurs based on meteorological data and predictive analytics.

• United States: In 2024-2025, the U.S. channeled significant funds through the USAID (United States Agency for International Development), focusing on the Indo-Pacific and Sub-Saharan Africa.

• European Union: The EU's humanitarian arm, ECHO (European Civil Protection and Humanitarian Aid Operations), was established in 1992 and operates in over 80 countries.

• India and UK: While India is a significant regional donor and provides pharmaceutical aid and disaster relief (e.g., Operation Dost), its absolute financial reporting to the FTS is generally lower than the U.S. or UAE. The United Kingdom, while a top donor, has seen fluctuations in its aid budget since 2021.

Q74. Answer: (c) -27

Shortcut Trick

45% of 20 = 9

=> $\sqrt[3]{729} = 9$ and $\sqrt{36} = 6$

=> Expression = $9 - (4/6 \times 9 \times 6)$

=> 6 cancels => $4 \times 9 = 36$

=> $9 - 36 = -27$

Therefore Answer = −27

Alternate Method

Given:

=> y = 45% of 20 − (4/6 × √³729 × √36)

Formula:

=> Percentage: x% of y = (x/100) × y

Calculations:

=> 45% of 20 = (45/100) × 20 = 9

=> √³729 = 9

=> √36 = 6

=> 4/6 × 9 × 6 = 4 × 9 = 36

=> y = 9 − 36 = −27

Final Answer: −27

Additional Information

1. Percentage Shortcut: 45% = 9/20, so 45% of 20 = 9 directly
2. Cube Root: √³a³ = a
3. Square Root: √a² = a
4. Simplification Tip: Always cancel common factors early to reduce steps

Q75. Answer: (c) 287 : 240

Shortcut Trick

4 : 28 => multiply by 7

=> 4.1 : x => x = 4.1 × 7 = 28.7

4 : 32 => multiply by 8

=> 3 : y => y = 3 × 8 = 24

=> x : y = 28.7 : 24 = 287 : 240

Therefore Answer = 287 : 240

Alternate Method

Given:

=> 4 : 28 :: 4.1 : x

=> 4 : 32 :: 3 : y

Formula:

=> a : b :: c : d => a/b = c/d

Calculations:

=> 4/28 = 4.1/x

=> x = (28 × 4.1) ÷ 4 = 7 × 4.1 = 28.7

=> 4/32 = 3/y

=> y = (32 × 3) ÷ 4 = 24

=> x : y = 28.7 : 24

=> Multiply by 10 => 287 : 240

Final Answer: 287 : 240

Additional Information

1. Proportion Rule: a : b :: c : d => a/b = c/d
2. Cross Multiplication: a × d = b × c
3. Ratio Simplification: Remove decimals by multiplying both terms
4. Exam Tip: Identify multiplication factor directly instead of full solving

Q76. Answer: (a) 14°

Shortcut Trick

Angle in semicircle = 90°

=> In ΔABC: angle ABC = 90 − 48 = 42°

=> In ΔABD: angle BAD = 90 − 55 = 35°

YourMockTest.com — Free Study Material

=> Same arc CD => angles differ by difference of these parts
=> Difference = (55 + 42) − (48 + 35)
=> = 97 − 83 = 14°
Final Answer: 14°
Alternate Method
Given:
=> AB is diameter => angle in semicircle = 90°
=> angle CAB = 48°, angle ABD = 55°
Concept Used:
=> Angle in a semicircle is 90°
=> Angles in same segment are equal
Calculations:
=> In ΔABC:
=> angle ACB = 90°
=> angle ABC = 180 − 90 − 48 = 42°
=> In ΔABD:
=> angle ADB = 90°
=> angle BAD = 180 − 90 − 55 = 35°
=> Now,
=> angle CBD = angle ABD + angle DBC = 55° + 42°
=> angle CAD = angle CAB + angle BAD = 48° + 35°
=> Difference = (55 + 42) − (48 + 35)
=> = 97 − 83 = 14°
Final Answer: 14°
Additional Information
1. Angle in Semicircle: Angle subtended by diameter = 90°
2. Same Segment Theorem: Angles subtended by same chord are equal
3. Triangle Sum Property: Sum of angles = 180°
4. Exam Tip: Break complex angles into known triangle angles

Q77. Answer: (d) 670

Shortcut Trick
Let Piyush = P, Manoj = M
Given: P(1.1)^(18) = M(1.1)^(19)
=> P = M × 1.1
Total = P + M = 1.1M + M = 2.1M = 1407
=> M = 1407 ÷ 2.1 = 670
Therefore Answer = 670
Alternate Method
Given:
=> Total amount = 1407
=> Rate = 10% per annum
=> Piyush time = 18 years, Manoj time = 19 years
Formula:
=> CI Amount = Principal × $(1 + r/100)^n$
Calculations:
=> P(1.1)^(18) = M(1.1)^(19)
=> Divide both sides by (1.1)^(18)
=> P = M(1.1)
=> Total = P + M = 1.1M + M = 2.1M
=> 2.1M = 1407
=> M = 1407 ÷ 2.1 = 670

Final Answer: 670

Additional Information

1. Compound Interest Formula: $A = P(1 + r/100)^n$
2. Ratio Trick: If amounts are equal, equate CI expressions and simplify powers
3. Exponent Rule: $a^m \div a^n = a^{(m-n)}$
4. Exam Tip: Cancel common powers first to reduce complexity

Q78. Answer: (c) Reservation System

The correct answer is Reservation System.

Key Points

• A Reservation System, also known as a Computer Reservations System (CRS), is a specialized software application used to manage the booking and scheduling of services, primarily in the travel and hospitality sectors. It is the core technology used for railway ticket booking and flight reservations. Hence, the option is correct.

• These systems allow users to perform multiple functions, such as checking real-time availability, viewing route schedules, selecting seats or berths, and generating electronic tickets.

• In India, the Indian Railway Catering and Tourism Corporation (IRCTC), established in 1999, manages one of the world's largest online reservation systems, handling millions of transactions daily for the Ministry of Railways.

• For the aviation industry, Global Distribution Systems (GDS) like Amadeus, Sabre, and Travelport act as centralized reservation systems that connect airlines, travel agents, and individual passengers globally. These systems utilize centralized databases to ensure that a seat booked in one location is immediately marked as unavailable across all other platforms to prevent double-booking.

• Key features of a reservation system include Passenger Name Record (PNR) generation, automated cancellation and refund processing, and integration with secure payment gateways for online transactions.

Additional Information

• Banking Applications:

• These applications are designed for financial management, core banking operations, fund transfers (NEFT, RTGS, IMPS), and account monitoring.

• While they facilitate the payment aspect of a ticket booking through net banking or UPI, they are not the primary software for managing seat inventories or travel schedules. Hence, this option is incorrect.

• Education Applications:

• These involve Learning Management Systems (LMS) like Moodle, Canvas, or Google Classroom, which are used for e-learning, online examinations, and student data management.

• Their functions are restricted to the academic field and do not include logistics or travel reservations. Hence, this option is incorrect.

• Communication Applications:

• These include Email services (Gmail), Instant Messaging (WhatsApp), and Video Conferencing (Zoom) software used for the exchange of information.

• While these tools are used to send booking confirmations or e-tickets to users, they do not host the database required to reserve a specific slot in a transport system. Hence, this option is incorrect.

Important Points

• Historical Context: The first automated reservation systems appeared in the 1950s (such as Sabre by American Airlines) to replace manual card-based filing systems.

• Technological Features: Modern reservation systems utilize Cloud Computing to handle peak traffic (e.g., during Tatkal hours in India) and Artificial Intelligence (AI) for dynamic pricing and demand forecasting.

• Accessibility: These applications are now accessible across multiple platforms including Mobile Apps, Web Browsers, and Physical Kiosks at railway stations and airports.

• Data Security: Reservation systems employ SSL (Secure Sockets Layer) encryption and Two-Factor Authentication (2FA) to protect sensitive passenger data and financial information during the booking process.

Q79. Answer: (d) PNL 17

The logic followed here is:

So, 'PNL 17' will replace the question mark in the given series.

Hence, the correct answer is "Option 4"

YourMockTest.com - Free Study Material

Q80. Answer: (d) Harisena

The correct answer is Harisena.

Key Points

• Harisena was a renowned 4th-century Sanskrit poet, panegyrist, and an influential government minister in the Gupta court. He held the prestigious positions of Mahadandanayaka (Chief Judicial Officer) and Sandhivigrahika (Minister of War and Peace) under Emperor Samudragupta.

• The Prayag Prashasti, also popularly known as the Allahabad Pillar Inscription, was composed by Harisena in praise of his patron, Samudragupta. It is one of the most vital epigraphic sources for studying the Gupta Dynasty.

• The inscription is composed in Classical Sanskrit and is written in the Champu Kavya style, which is a sophisticated literary form that blends prose and poetry. It is engraved on an Ashokan Pillar located in Prayagraj (formerly Allahabad), Uttar Pradesh.

• The primary function of this Prashasti (eulogy) was to document the extensive military conquests and the political achievements of Samudragupta. It provides a list of the various kings and tribal republics of Aryavarta and Dakshinapatha that were defeated or subjugated by him.

• The text also sheds light on the administrative structure of the Gupta Empire and portrays Samudragupta as a compassionate ruler, a great musician, and a Kaviraja (King of Poets).

Additional Information

• Samudragupta (reigned c. 335–375 AD):

• He was the successor of Chandragupta I and is famously referred to as the "Napoleon of India" by the historian V.A. Smith due to his undefeated military record.

• He performed the Ashvamedha (horse sacrifice) to proclaim his imperial sovereignty and issued gold coins depicting him playing the Veena, highlighting his interest in music.

• Vishakhadatta:

• A celebrated Sanskrit playwright of the Gupta era, he is best known for the political drama Mudrarakshasa, which narrates the rise of Chandragupta Maurya with the help of Chanakya.

• He also wrote Devichandraguptam, a play that provides historical insights into the transition of power from Ramagupta to Chandragupta II.

• Kalidasa:

• Considered the greatest poet and dramatist in Sanskrit literature, he was one of the Navaratnas (nine gems) in the court of Chandragupta II (Vikramaditya).

• His masterpiece works include the play Abhijñānaśākuntalam and epic poems such as Meghadūta, Raghuvamsha, and Kumarasambhava.

• Banabhatta:

• He was the Asthana Kavi (court poet) of King Harshavardhana, who ruled North India in the 7th century AD.

• His most famous works are Harshacharita, a biography of King Harsha, and Kadambari, which is regarded as one of the earliest novels in the world.

Important Points

• The Allahabad Pillar is a unique historical monument as it bears inscriptions from three different periods: the Mauryan edicts of Ashoka, the Gupta prashasti of Samudragupta, and a later inscription by the Mughal Emperor Jahangir.

• Harisena describes the geographical extent of the Gupta Empire, mentioning that Samudragupta uprooted nine kings of Northern India (Aryavarta) and defeated twelve kings of Southern India (Dakshinapatha), whom he later reinstated as feudatories.

• The Prayag Prashasti remains the most authentic record for understanding the Digvijaya policy of the Guptas, marking the transition of India into its "Golden Age" of art, literature, and political stability.

Q81. Answer: (a) 26

Shortcut Trick

If two quadratics have common roots => they are proportional

=> $(a^2 - 7a) : 1 : 12 = 240 : 8 : (a^2 - 4)$

Compare middle terms: $1 : 8 = k \Rightarrow k = 1/8$

=> $(a^2 - 7a) = 240 \times (1/8) = 30$

=> $a^2 - 7a - 30 = 0 \Rightarrow a = 10$

=> Value = $(12 \times 13)/6 = 26$

Therefore Answer = 26

Alternate Method

Given:

=> $(a^2 - 7a)x^2 + x + 12 = 0$

=> $240x^2 + 8x + (a^2 - 4) = 0$

Concept Used:

=> If two equations have same roots, ratios of coefficients are equal

Calculations:

=> $(a^2 - 7a)/240 = 1/8 = 12/(a^2 - 4)$

=> From first:

=> $(a^2 - 7a)/240 = 1/8$

=> $a^2 - 7a = 30$

=> $a^2 - 7a - 30 = 0$

=> $(a - 10)(a + 3) = 0$

=> a = 10 (positive)

=> Required value:

=> $(a + 2)(a + 3)/(a - 4)$

=> $= (12 \times 13)/6 = 26$

Final Answer: 26

Additional Information

1. Common Roots Rule: $a1/a2 = b1/b2 = c1/c2$
2. Quadratic Nature: $ax^2 + bx + c = 0$
3. Factorization: Use splitting middle term for quick solving
4. Exam Tip: Compare simplest ratio first to reduce steps

Q82. Answer: (a) 116

The logic followed here is:

Logic: Second number = (Number × 3) + 5

18 → 59

=> 18 × 3 = 54

=> 54 + 5 = 59

27 → 86

=> 27 × 3 = 81

=> 81 + 5 = 86

Now, applying the same pattern for 37:

=> 37 × 3 = 111

=> 111 + 5 = 116

Hence, the correct answer is Option 1.

Q83. Answer: (a) Safe School Vehicle Policy

The correct answer is Safe School Vehicle Policy.

Key Points

• The Punjab Government, in December 2025, issued a strict directive for the rigorous enforcement of the Safe School Vehicle Policy (also known as Surakshit School Vahan Policy) across the State. This measure was specifically taken to safeguard schoolchildren during dense winter fog, which significantly reduces visibility on roads. Hence, the statement related to Safe School Vehicle Policy is correct.

• The Safe School Vehicle Policy is a comprehensive set of guidelines designed to ensure the safety of students during transit. Key features include mandatory installation of reflectors, fog lights, and high-intensity headlights to manage visibility issues during the winter season.

• Under this directive, all school buses and transport vehicles must strictly adhere to reduced speed limits. The use of speed governors is mandatory to ensure vehicles do not exceed the prescribed limit, typically 40 km/h or 50 km/h depending on the road type and weather conditions.

• The Deputy Commissioners (DCs) and Senior Superintendents of Police (SSPs) of various districts in Punjab were tasked with conducting regular inspections and surveys to ensure compliance. Failure to comply leads to the impounding of vehicles or heavy fines under the Motor Vehicles Act.

• The policy also mandates that every school bus must be painted in yellow color, have "School Bus" written clearly on the front and back, and be equipped with CCTV cameras and a Global Positioning System (GPS) for real-time tracking.

Additional Information

YourMockTest.com — Free Study Material

• National Road Safety Policy: This is a country-wide framework formulated by the Ministry of Road Transport and Highways (MoRTH). While it provides the broad vision for road safety in India, it is not the specific state-level directive for school bus visibility during dense fog in Punjab. Hence, this statement is incorrect.

• Motor Vehicles Safety Compliance Programme: This usually refers to a general set of functions and audits conducted by transport departments to ensure vehicles meet safety standards (like emission and fitness). It is not the specific name of the school safety policy in question. Hence, this statement is incorrect.

• National School Safety and Security Guidelines: These guidelines were issued by the Ministry of Education and the NCPCR (National Commission for Protection of Child Rights) to ensure overall safety within school premises, including protection from natural disasters and abuse. It does not specifically focus on visibility measures for transport during fog. Hence, this statement is incorrect.

• Administrative Jurisdiction: In India, road safety is a subject where both the Union and State Governments have powers. The Safe School Vehicle Policy in Punjab was framed following the directions of the Punjab and Haryana High Court to implement the Supreme Court's safety guidelines for school buses.

Important Points

• Supreme Court Guidelines (1997): The Safe School Vehicle Policy is rooted in the landmark M.C. Mehta vs. Union of India case, where the Supreme Court laid down 15 essential safety features for school buses, including first aid kits, fire extinguishers, and the presence of a female attendant if the bus carries girl students.

• Reflective Tapes: During December and January, the Punjab traffic police mandate the application of red and white reflective tapes on the rear and front of vehicles to prevent rear-end collisions during low visibility.

• Child Rights Protection: The Punjab State Commission for Protection of Child Rights (PSCPCR) plays a vital role in monitoring the implementation of this policy to ensure the Right to Life and Safety of children under Article 21 of the Constitution of India.

• Penalty and Enforcement: Under the Motor Vehicles Act, 1988, and its subsequent amendments, numerical values for fines for violating school transport safety can range from Rs. 2,000 to Rs. 5,000, along with the potential cancellation of the driver's license.

Q84. Answer: (a) 105

The logic followed here is:

thus, "105" will replace the question mark in the given series.

Hence, the correct option is "Option 1".

Q85. Answer: (a) 48 and 12

Shortcut Trick

Difference (constant) = ?

6 yrs hence: F + 6 = 3(S + 6) => F = 3S + 12

6 yrs ago: F − 6 = 7(S − 6) => F = 7S − 36

=> 3S + 12 = 7S − 36 => 4S = 48 => S = 12

=> F = 3(12) + 12 = 48

Therefore Answer = Father = 48, Son = 12

Alternate Method

Given:

=> Let present ages be Father = F, Son = S

Form Equations:

=> (F + 6) = 3(S + 6)

=> F + 6 = 3S + 18

=> F = 3S + 12 ...(1)

=> (F − 6) = 7(S − 6)

=> F − 6 = 7S − 42

=> F = 7S − 36 ...(2)

Solving:

=> From (1) and (2):

=> 3S + 12 = 7S − 36

=> 4S = 48 => S = 12

=> F = 3(12) + 12 = 48

Final Answer: Father = 48 years, Son = 12 years

Additional Information

1. Age Difference: Difference between ages remains constant over time

2. Linear Equations: Age problems convert into simple linear equations

3. Time Shift: Future → add years, Past → subtract years

4. Exam Tip: Always form equations carefully before solving

Q86. Answer: (a) Practice of issuing ad hoc Treasury Bills

The correct answer is Practice of issuing ad hoc Treasury Bills.

Key Points

• In March 1997, a landmark agreement was signed between the Reserve Bank of India (RBI) and the Government of India to reform the financing of the fiscal deficit.

• As per this agreement, the practice of issuing ad hoc Treasury Bills to the RBI was discontinued with effect from April 1, 1997. Hence, statement 1 is correct.

• Before this reform, the government could automatically borrow from the RBI through 91-day ad hoc Treasury Bills whenever its cash balance fell below a certain limit, usually Rs. 50 crore.

• The issuance of 91-day Treasury Bills to the public through auctions was not discontinued; only the "ad hoc" variety issued specifically to the RBI was stopped. Hence, statement 2 is incorrect.

• Market borrowing through dated securities remains the primary method for the government to finance its long-term debt and was not discontinued in 1997. Hence, statement 3 is incorrect.

• While the agreement effectively ended the automatic monetisation of the fiscal deficit, the specific "practice" or instrument explicitly mentioned for discontinuation in the 1997 agreement was the issuance of ad hoc Treasury Bills. Hence, statement 4 describes the concept, but statement 1 identifies the specific practice.

Additional Information

• Ways and Means Advances (WMA): Following the discontinuation of ad hoc bills, the Ways and Means Advances (WMA) system was introduced on April 1, 1997. This system allows the government to borrow from the RBI to meet temporary mismatches in receipts and payments, but these are not for permanent deficit financing.

• Fiscal Discipline: The transition from ad hoc bills to WMA was a significant step toward fiscal discipline in India, as it prevented the government from relying on the RBI to print money automatically to cover its spending.

• Treasury Bills (T-Bills): These are short-term debt instruments issued by the Government of India and are presently issued in three tenors: 91-day, 182-day, and 364-day. They are zero-coupon securities that pay no interest but are issued at a discount.

• Monetary Policy Autonomy: Ending the automatic monetisation of the deficit provided the Reserve Bank of India with greater autonomy in conducting monetary policy, as the money supply was no longer dictated by the government's fiscal needs.

Important Points

• Historical Context: The system of ad hoc Treasury Bills was first introduced in 1955. Over the decades, it became a tool for deficit financing, which often led to high inflation in the Indian economy.

• FRBM Act, 2003: The spirit of the 1997 agreement was further strengthened by the Fiscal Responsibility and Budget Management (FRBM) Act, 2003, which prohibited the RBI from participating in the primary issuance of government securities from April 1, 2006.

• Impact on Interest Rates: By shifting to market borrowings through dated securities and auctioned T-bills, the government had to pay market-determined interest rates, which further incentivized the reduction of the fiscal deficit.

• Current Scenario: Today, the RBI only manages the government’s debt and cash, acting as a merchant banker, rather than an automatic financier of the deficit.

Q87. Answer: (d) 625

Shortcut Trick

Let total voters = N

=> Votes polled = 80% of N = 0.8N

=> Valid votes = 90% of 0.8N = 0.72N

=> Winning margin = (89% − 11%) of valid = 78% of 0.72N

=> 0.78 × 0.72N = 351 => 0.5616N = 351

=> N = 351 ÷ 0.5616 = 625

Therefore Answer = 625

Alternate Method

Given:

=> 80% voted

=> 10% invalid => 90% valid

=> Winner got 89% of valid votes

=> Margin = 351

Formula:

=> Margin = (Difference in vote %) × Valid votes

Calculations:

=> Let total voters = N

=> Votes polled = 0.8N

=> Valid votes = 0.9 × 0.8N = 0.72N

=> Loser votes = 11% of valid

=> Difference = 89% − 11% = 78%

=> Margin = 78% of 0.72N

=> 0.78 × 0.72N = 351

=> 0.5616N = 351

=> N = 351 ÷ 0.5616 = 625

Final Answer: 625

Additional Information

1. Valid Votes: Total votes × (1 − invalid%)
2. Margin Concept: Difference between winner and loser votes
3. Percentage Chain: Multiply successive percentages stepwise
4. Exam Tip: Combine percentages early to simplify calculation

Q88. Answer: (d) 1236

Shortcut Trick

Open top => exclude top area

=> Surface = lb + 2h(l + b)

=> = (8 × 17) + 2 × 22(8 + 17)

=> = 136 + 44 × 25 = 136 + 1100 = 1236

Therefore Answer = 1236 cm²

Alternate Method

Given:

=> Length = 8 cm, Breadth = 17 cm, Height = 22 cm

=> Box is open at top

Formula:

=> Internal Surface Area = lb + 2lh + 2bh

Calculations:

=> lb = 8 × 17 = 136

=> 2lh = 2 × 8 × 22 = 352

=> 2bh = 2 × 17 × 22 = 748

=> Total = 136 + 352 + 748 = 1236

Final Answer: 1236 cm²

Additional Information

1. Closed Cuboid: Surface area = 2(lb + bh + lh)
2. Open Top Box: Remove top area => lb + 2lh + 2bh
3. Units: Always square units for area
4. Exam Tip: Use factorization: 2h(l + b) for faster solving

Q89. Answer: (c) Kubera

The correct answer is Kubera.

Key Points

• The Prayaga Prashasti, also widely known as the Allahabad Pillar Inscription, is one of the most important historical documents of the Gupta Empire. It was composed by Harisena, who served as the Mahadandanayaka (Chief Judicial Officer) and Sandhivigrahika (Minister of Peace and War) in the court of Samudragupta.

• In this inscription, Samudragupta is glorified as a divine being and is compared to various Hindu deities (Lokapalas). Specifically, he is compared to Kubera, the God of Wealth, to signify his immense prosperity and generosity. Hence, the correct option is

YourMockTest.com — Free Study Material

Kubera.

• The Prashasti also compares him to other gods to highlight different facets of his personality: Varuna (the god of the oceans), Indra (the king of gods associated with thunder and rain), and Yama (the god of death and justice).

• The inscription describes Samudragupta as a "god dwelling on earth" and mentions that his fame reached the heavens. It was written in Classical Sanskrit using the Brahmi script in the Champu kavya style, which is a blend of prose and poetry.

• The text highlights the king's digvijaya (conquest of the world), detailing his victories across the Indian subcontinent, from the Gangetic Valley to the Deccan and South India.

Additional Information

• Samudragupta (335-375 AD):

• He was the son of Chandragupta I and Kumaradevi (a Lichchhavi princess). He is often called the "Napoleon of India" by historian V.A. Smith because of his extensive military campaigns.

• Unlike many other conquerors, he adopted a policy of Grahana-Moksha-Anugraha for the kings of Dakshinapatha (South India), where he defeated them but reinstated them as vassals after they accepted his suzerainty.

• He was a great patron of Brahmanical Hinduism but was also tolerant of other faiths; he allowed the King of Sri Lanka, Meghavarman, to build a Buddhist monastery at Bodh Gaya.

• Numismatic Evidence:

• Samudragupta issued various types of gold coins, such as the Lyrist type, which depicts him playing the Veena (a stringed instrument), showcasing his love for music and arts.

• Other coin types include the Archer type, Battle-axe type, and Ashvamedha type, the latter of which commemorates the performance of the Ashvamedha Yajna (horse sacrifice) to proclaim his imperial status.

Important Points

• The Allahabad Pillar (Prayag Stambh) is unique because it contains inscriptions from three different eras and rulers:

1. Ashoka: The original Mauryan inscription containing Ashokan edicts (specifically the Schism Edict).

2. Samudragupta: The Prayaga Prashasti composed by Harisena in the 4th Century AD.

3. Jahangir: A later inscription in Persian belonging to the Mughal Emperor Jahangir from the 17th Century.

• The Prayaga Prashasti is a vital source for understanding the political geography of Ancient India, as it names the various Atavika Rajyas (forest kingdoms), Gana-Sanghas (tribal republics), and frontier states like Samatata, Davaka, and Kamarupa that paid tribute to the Gupta monarch.

Q90. Answer: (a) S

Given: P, Q, R, S, Y, and Z live on six different floors of the same building.

The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on, till the topmost floor, which is numbered 6.

Only three people live between Y and Z.

Only P lives above Y.

R lives on an odd-numbered floor.

Q lives immediately below Y.

Floor	Person
6	P
5	Y
4	Q
3	R
2	S
1	Z

Now, person on floor number 2: S

Hence, the correct answer is Option 1.

Q91. Answer: (c) 1,96,000 Pa

The correct answer is 1,96,000 Pa.

Key Points

• The pressure exerted by a liquid at a certain depth is determined by the formula P = h ρ g, where P is the pressure, h is the depth, ρ is the density of the fluid, and g is the acceleration due to gravity.

• In this problem, the height (h) of the water column is given as 20 metres. This represents the vertical distance from the surface to the base of the lake.

• The density of water (ρ) is provided as 1 kg/litre. To use the standard SI units for pressure (Pascals), we must convert this to kg/m³. Since 1 m³ contains 1000 litres, the density is 1000 kg/m³.

• The acceleration due to gravity (g) is specified as 9.8 m/s².

• By substituting these values into the formula: Pressure (P) = 20 m × 1000 kg/m³ × 9.8 m/s².

• The calculation results in 20 × 9800, which equals 1,96,000. The unit of this result is Pascal (Pa), which is equivalent to N/m².

Additional Information

• Hydrostatic Pressure: This is the pressure exerted by a fluid at equilibrium at a given point within the fluid, due to the force of gravity. It increases in direct proportion to the depth measured from the surface because of the increasing weight of the fluid exerting downward force from above.

• Units of Pressure: The standard SI unit is the Pascal (Pa). Other common units include atmosphere (atm), bar, and torr. 1 atm is approximately 1,01,325 Pa.

• Density of Water: While usually taken as 1000 kg/m³ for calculations, the actual density varies slightly with temperature and salinity. Pure water reaches its maximum density at approximately 4 degrees Celsius.

• Atmospheric Pressure: It is important to note that the total pressure at the base of a lake is actually the sum of the atmospheric pressure at the surface and the hydrostatic pressure of the water. However, in physics problems of this type, the "pressure of water" usually refers to the gauge pressure (the pressure caused specifically by the water column).

• Applications: Understanding fluid pressure is vital in engineering for the construction of dams, submarines, and water supply systems. For instance, the walls of a dam are built thicker at the bottom than at the top to withstand the higher pressure at greater depths.

Important Points

• Independent of Shape: The pressure at the base of the lake depends only on the depth (height) and not on the volume of water or the shape of the lake. This is known as the Hydrostatic Paradox.

• Pascal's Law: This law states that any pressure applied to a confined fluid is transmitted undiminished in all directions throughout the fluid. This principle is the foundation for hydraulic systems used in car brakes and lifts.

• Numerical Value Breakdown:

• If h = 20, g = 9.8, ρ = 1000.

• P = 196,000 Pa.

• If expressed in kilopascals, it would be 196 kPa.

Q92. Answer: (c) Agriculture Insurance Company of India Ltd. (AIC)

The correct answer is Agriculture Insurance Company of India Ltd. (AIC).

Key Points

• The National Agricultural Insurance Scheme (NAIS) was introduced by the Government of India during the Rabi season of 1999-2000 to provide financial security to farmers against crop failure.

• The Agriculture Insurance Company of India Ltd. (AIC) is the specialized organization that serves as the implementing agency for this scheme. It took over the implementation from the General Insurance Corporation (GIC) of India to provide better focus on agricultural risks. Hence, the option Agriculture Insurance Company of India Ltd. (AIC) is correct.

• The NAIS was designed to cover all food crops (cereals, millets, and pulses), oilseeds, and annual commercial/horticultural crops for which past yield data were available.

• It was a central sector scheme where the loanee farmers (those who took institutional credit) were covered compulsorily, while the scheme was voluntary for non-loanee farmers.

• The primary objective of the scheme was to provide insurance coverage and financial support to farmers in the event of failure of any of the notified crops as a result of natural calamities, pests, and diseases.

Additional Information

• Agriculture Insurance Company of India Ltd. (AIC):

• It was incorporated on December 20, 2002, under the Companies Act, 1956.

• The company was promoted by NABARD, GIC, and four public sector general insurance companies (New India Assurance, United India Insurance, Oriental Insurance, and National Insurance).

• Headquartered in New Delhi, it officially commenced its business operations on April 1, 2003.

• It plays a vital role in the Pradhan Mantri Fasal Bima Yojana (PMFBY), which replaced NAIS in 2016.

• National Bank for Agriculture and Rural Development (NABARD):

• Established on July 12, 1982, based on the recommendations of the B. Sivaraman Committee.

• It is the apex regulatory body for the overall regulation and licensing of regional rural banks and apex cooperative banks in India.

• While it supports agricultural credit, it is not the direct implementing agency for crop insurance payouts under NAIS. Hence, this statement/option is incorrect.

• Food Corporation of India (FCI):

• Set up on January 14, 1965, under the Food Corporations Act, 1964.

• Its main functions include effective price support operations for safeguarding the interests of farmers and maintaining operational and buffer stocks of foodgrains for food security.

• It does not deal with agricultural insurance. Hence, this statement/option is incorrect.

• Indian Council of Agricultural Research (ICAR):

• An autonomous body responsible for coordinating, guiding, and managing research and education in agriculture, including horticulture, fisheries, and animal sciences in the entire country.

• It was established on July 16, 1929, and is headquartered in New Delhi.

• It focuses on scientific advancement rather than the financial implementation of insurance schemes. Hence, this statement/option is incorrect.

Important Points

• The National Agricultural Insurance Scheme (NAIS) was succeeded by the Modified National Agricultural Insurance Scheme (MNAIS) and finally by the Pradhan Mantri Fasal Bima Yojana (PMFBY) in 2016.

• Under PMFBY, the premium rates were significantly reduced to 2% for Kharif crops, 1.5% for Rabi crops, and 5% for commercial/horticultural crops to increase farmer participation.

• The AIC remains one of the largest specialized crop insurance companies in the world by premium volume and the number of farmers covered.

• The transition from NAIS to PMFBY was intended to remove capping on premium rates, ensuring farmers receive the full sum insured without any reduction.

Q93. Answer: (a) Zakir Hussain

The correct answer is Zakir Hussain.

Key Points

• Zakir Hussain, born on 9 March 1951 in Mumbai, is a world-renowned Tabla maestro, composer, and percussionist. He is considered one of the greatest exponents of the Hindustani classical music tradition. Hence, the first option is the correct answer.

• He is the eldest son of the legendary Ustad Alla Rakha, who was also a celebrated Tabla player and frequent collaborator with Pandit Ravi Shankar.

• Zakir Hussain is famously known for his extensive international collaborations. He was a founding member of the influential fusion band Shakti, which he formed in the 1970s with British guitarist John McLaughlin and Indian violinist L. Shankar.

• He has contributed significantly to the global music scene through projects like Planet Drum and Global Drum Project, collaborating with Mickey Hart of the Grateful Dead. These works helped popularize the Tabla in Western countries.

• His career spans over five decades, during which he has received several prestigious honors, including the Sangeet Natak Akademi Award in 1990 and several Grammy Awards.

Additional Information

• EM Subramaniam: He was a highly respected Ghatam (earthen pot) player in the Carnatic classical music tradition. Based in South India, he was known for his intricate rhythmic patterns and was a recipient of the Kalaimamani award from the Tamil Nadu government. Hence, this statement is incorrect regarding the Tabla.

• Hari Prasad Chaurasia: Born in 1938 in Allahabad (now Prayagraj), he is a legendary Bansuri (bamboo flute) player. He belongs to the Maihar Gharana and has collaborated with several artists, but his primary instrument is the flute, not the Tabla. Hence, this statement is incorrect.

• Sajjad Hussain: He was a noted Indian film music director and a virtuoso of the Mandolin. He was active in the Hindi film industry (Bollywood) during the 1940s and 1950s, known for his complex and melodious compositions. Hence, this statement is incorrect regarding the Tabla.

• Tabla: It is a pair of twin hand drums from the Indian subcontinent, used primarily in Hindustani classical music and in popular and devotional music. It consists of the Dayan (right drum, usually made of wood) and the Bayan (left drum, usually made of metal or clay).

Important Points

• Padma Awards: Zakir Hussain was honored with the Padma Shri in 1988, the Padma Bhushan in 2002, and the Padma Vibhushan (India's second-highest civilian award) in 2023 for his contribution to the arts.

• Grammy Awards 2024: In a historic achievement, Zakir Hussain won three Grammys at the 66th Annual Grammy Awards. He won Best Global Music Album for 'This Moment' with his band Shakti, and Best Global Music Performance for 'Pashto'.

• Global Impact: He was awarded the National Endowment for the Arts' National Heritage Fellowship in 1999, which is the highest honor given to traditional artists in the United States.

• Educational Role: He has served as a visiting professor at several universities, including Princeton University and Stanford University, sharing the nuances of Indian percussion with global students.

Q94. Answer: (d) Satish Dhawan Space Centre

The correct answer is Satish Dhawan Space Centre.

Key Points

• The Union Cabinet of India, in December 2025, approved the establishment of the Third Launch Pad (TLP) to be located at the Satish Dhawan Space Centre (SDSC), SHAR.

• The Satish Dhawan Space Centre is situated in Sriharikota, Andhra Pradesh, and currently serves as the primary spaceport for the Indian Space Research Organisation (ISRO). Hence, the statement regarding its hosting is correct.

• The construction of the Third Launch Pad is aimed at supporting the Next Generation Launch Vehicle (NGLV), which is a heavy-lift rocket designed for cost-effective and reusable space missions.

• This new infrastructure is vital for the Indian Human Spaceflight Programme, popularly known as Gaganyaan, providing the necessary facilities for manned missions and larger satellite deployments.

• The TLP is expected to increase India's launch frequency, allowing ISRO to meet the growing global demand for satellite launches and commercial space services.

Additional Information

• Satish Dhawan Space Centre (SDSC), SHAR:

• Established in the year 1971, it was formerly known as the Sriharikota Range (SHAR) and was renamed in 2002 in honor of ISRO's former chairman, Satish Dhawan.

• It currently houses the First Launch Pad (FLP) and the Second Launch Pad (SLP), which have facilitated iconic missions like Chandrayaan and Mangalyaan.

• National Remote Sensing Centre (NRSC):

• Located in Hyderabad, Telangana, the NRSC is responsible for remote sensing satellite data acquisition and processing.

• It plays a crucial role in disaster management and resource mapping but does not host orbital launch facilities. Hence, this option is incorrect.

• Vikram Sarabhai Space Centre (VSSC):

• Based in Thiruvananthapuram, Kerala, it is the lead center for the development of launch vehicles (rockets) like the PSLV, GSLV, and LVM3.

• While it designs the rockets, the actual orbital launches take place from Sriharikota. Hence, this option is incorrect.

• Space Applications Centre (SAC):

• Situated in Ahmedabad, Gujarat, this center focuses on the design of payloads and sensors for communication and meteorological satellites.

• It handles the "application" part of space technology rather than the physical launch infrastructure. Hence, this option is incorrect.

Important Points

• Strategic Significance: The addition of the Third Launch Pad signifies India's transition toward more complex space explorations, including interplanetary missions and space station assembly.

• Economic Impact: By expanding launch capacity, ISRO via its commercial arm, NewSpace India Limited (NSIL), can capture a larger share of the global space economy, estimated to be worth billions of US dollars.

• Next Generation Launch Vehicle (NGLV): This rocket is intended to replace the PSLV in the future, using green propellants like LOX/Methane and offering a payload capacity of up to 10 tonnes to Geostationary Transfer Orbit (GTO).

• Location Advantage: Sriharikota is chosen as the launch site due to its proximity to the equator and its location on the East Coast, which provides an Earth-rotation speed boost and a safe corridor for rocket stages to fall into the Bay of Bengal.

Q95. Answer: (b) Education administration

The correct answer is Education administration.

Key Points

• Education administration refers to the management and operation of educational institutions like schools, colleges, and universities. Computer applications in this field are designed to handle the clerical and organizational workload of educators and administrators.

• Maintaining student records is a core function where databases are used to store personal details, attendance, and disciplinary history of thousands of students securely. Hence, this action is directly related to Education administration.

• Preparation of report cards involves the use of spreadsheet software or specialized School Management Systems to automate the calculation of grades, percentages, and rankings based on examination marks. This reduces manual errors and saves significant time for teachers.

• Creating question papers is another critical administrative and academic task. Computers allow for the use of word processing

YourMockTest.com — Free Study Material

software and the maintenance of a question bank, enabling the quick generation of multiple versions of tests and exams.

• The integration of Information and Communication Technology (ICT) in Education administration ensures transparency, better data management, and efficient communication between the institution, students, and parents.

Additional Information

• Space Research: In this area, computers are used for highly complex mathematical calculations, satellite tracking, and spacecraft navigation. Organizations like ISRO (India) and NASA (USA) utilize supercomputers for weather forecasting and simulating flight conditions. This is not related to student report cards.

• Business Marketing: This involves the use of computers for market research, advertising, and sales analysis. Techniques like Digital Marketing, Search Engine Optimization (SEO), and Customer Relationship Management (CRM) software are used to target consumers and track commercial trends.

• Automobile Control: This field utilizes embedded systems and microcontrollers to manage vehicle functions. Features like Anti-lock Braking Systems (ABS), Electronic Fuel Injection (EFI), and autonomous driving algorithms are key components of computer applications in automotive engineering.

• ICT in India: The Government of India promotes the use of computers in schools through initiatives like the ICT @ Schools scheme and the Digital India campaign to modernize Education administration across rural and urban areas.

Important Points

• Automation in Schools: Modern Enterprise Resource Planning (ERP) software for schools integrates fee management, library records, and timetable scheduling into a single platform.

• Data Security: Within Education administration, protecting the privacy of student data is paramount, leading to the use of encrypted databases and secure login credentials for staff and students.

• Standardization: The use of computers ensures that report cards and certificates follow a standardized format, which is essential for academic transfers and legal documentation.

• Accessibility: Through online portals, parents can access their ward's academic records and attendance from any location, enhancing the feedback loop between home and school.

Q96. Answer: (c) EI−IP

The logic followed here is based on the alphabetical shift in both letters of each pair:

Option 1: RV − WA

Option 2: PT − UY

Option 3: EI − IP

Option 4: GK − LP

Thus, EI − IP does not follow this pattern.

Hence, the odd one out is Option 3.

Q97. Answer: (a) 14

Given number: 52697148

Logic: Arrange the digits in descending order, then find the product of the 3rd digit from the left and 2nd digit from the right

Original number: 5 2 6 9 7 1 4 8

Digit (Original)	Rearranged Position
9	1st
8	2nd
7	3rd
6	4th
5	5th
4	6th
2	7th
1	8th

New number: 9 8 7 6 5 4 2 1

Now, 3rd from the left = 7

2nd from the right = 2

Product = 7 × 2 = 14

Hence, the correct answer is Option 1.

Q98. Answer: (c) 408

Shortcut Trick

Use weighted average

=> Total = 72×404 + 12×316 + 87×424

=> = 29088 + 3792 + 36888 = 69768

=> Total members = 72 + 12 + 87 = 171

=> Avg = 69768 ÷ 171 = 408

Therefore Answer = 408

Alternate Method

Given:

=> Group A: 72 members, avg = 404

=> Group B: 12 members, avg = 316

=> Group C: 87 members, avg = 424

Formula:

=> Overall Avg = (Σ fx) ÷ (Σ f)

Calculations:

=> Total amount A = 72 × 404 = 29088

=> Total amount B = 12 × 316 = 3792

=> Total amount C = 87 × 424 = 36888

=> Total amount = 29088 + 3792 + 36888 = 69768

=> Total members = 171

=> Average = 69768 ÷ 171 = 408

Final Answer: 408

Additional Information

1. Weighted Average: (f1x1 + f2x2 + ...) ÷ (f1 + f2 + ...)

2. Shortcut: Multiply average with frequency to get total quickly

3. Concept: Larger group has more impact on final average

4. Exam Tip: Avoid decimals by direct multiplication method

Q99. Answer: (c) Kerala

The correct answer is Kerala.

Key Points

• Kerala: For the year 2023-24, Kerala continues to be the leading producer of natural rubber in India, accounting for nearly 70% to 75% of the total national output. The state's favorable agro-climatic conditions, including high humidity and consistent rainfall, make it the ideal location for Hevea brasiliensis cultivation. Hence, this statement is correct.

• Tamil Nadu: This state ranks as the second-largest producer of natural rubber in India. Most of its production is concentrated in the Kanyakumari district, which shares similar geographical features with Kerala. However, its total volume is significantly lower than that of Kerala. Hence, this statement is incorrect.

• Karnataka: Karnataka is another traditional rubber-growing state where cultivation is primarily found in the Western Ghats region, specifically in districts like Dakshina Kannada, Kodagu, and Chikmagalur. While it contributes to the national pool, it does not hold the top rank. Hence, this statement is incorrect.

• Andhra Pradesh: While there have been minor experimental plantations in the Coastal Andhra and Agency areas, Andhra Pradesh is not a major producer of natural rubber and does not feature in the top tier of rubber-producing states in India. Hence, this statement is incorrect.

Additional Information

• Global Standing: India is currently the sixth largest producer of natural rubber in the world. The leading global producers include Thailand, Indonesia, and Vietnam.

• Climatic Requirements: Natural rubber is an equatorial crop but can grow in tropical and sub-tropical regions under specific conditions. It requires a moist and humid climate with a minimum annual rainfall of 200 cm and a temperature range between 20°C and 34°C.

• Soil and Geography: Well-drained, deep lateritic soils or alluvial soils are best suited for rubber trees. In India, traditional cultivation is confined to the Western Ghats (Kerala, Tamil Nadu, Karnataka), while non-traditional areas include Tripura, Assam, and Meghalaya.

YourMockTest.com — Free Study Material

• Economic Significance: Rubber is a vital industrial raw material used extensively in the automobile industry (for tires and tubes), footwear, medical equipment (gloves, contraceptives), and various engineering goods.

• Consumption: India is the second-largest consumer of natural rubber globally. Despite high domestic production, the country often imports rubber to bridge the gap between demand and supply, particularly for the automotive sector.

Important Points

• The Rubber Board: It is a statutory body constituted by the Government of India under the Rubber Act, 1947. It functions under the administrative control of the Ministry of Commerce and Industry.

• Headquarters: The Rubber Board is headquartered in Kottayam, Kerala, which is often referred to as the Rubber Capital of India.

• Production Data (2023-24): Total production of natural rubber in India was estimated to be around 8.5 lakh tonnes. Kerala maintains its dominance due to the presence of large estates and a high density of small-scale growers.

• Expansion to North-East: Due to land saturation in South India, the Rubber Board is aggressively promoting cultivation in North-Eastern states. Tripura has emerged as the largest producer in the North-East and the second-largest in the country after Kerala in terms of area under cultivation.

Q100. Answer: (a) #

Given: (Left) R % C * E 3 K 6 $ 7 D @ 2 T Y # 4 5 G & S (Right)

Now, Remove all the letters from the series.

Remaining series: % * 3 6 $ 7 @ 2 # 4 5 &

Now, counting from the right: % * 3 6 $ 7 @ 2 # 4 5 &

So, the fourth element from the right is #

Hence, the correct answer is Option 1.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**