RRB NTPC Graduate Level CBT-I Official Paper (Held On: 23 Jun, 2025 Shift 2) (Previous Year Paper)

RRB Group D • 2025 • 100 questions • 90 minutes • Answer key and solutions

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Q1. If A's salary is 16% more than that of B, then by what percentage is B's salary less than that of A (correct to two decimal places)?

(a) 12.72%
(b) 15.05%
(c) 13.79%
(d) 13.62%

Q2. Which of the following is a key river in the Thar Desert region?

(a) Luni river
(b) Yamuna river
(c) Sutlej river
(d) Ghaggar river

Q3. In a certain code language, ‘NEST’ is coded as ‘4683’ and ‘SOUP’ is coded as ‘2319’.What is the code for ‘S’ in the given code language?

(a) 3
(b) 1
(c) 2
(d) 9

Q4. 15 chairs and 19 tables cost Rs. 5,300 and 19 chairs and 19 tables cost Rs. 5,700. What is the cost of 12 chairs and 13 tables?

(a) Rs. 3,799
(b) Rs. 3,800
(c) Rs. 3,795
(d) Rs. 3,801

Q5. If 1 is added to each odd digit and 1 is subtracted from each even digit in the number 8146752, what will be the difference between the last and first digits from the left in the new number thus formed?

(a) 3
(b) 6
(c) 5
(d) 4

Q6. In October 2024, India and Pakistan agreed to extend the Kartarpur Corridor agreement for how many additional years?

(a) 10
(b) 3
(c) 5
(d) 7

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Q7. The last ruler of the Shunga dynasty was:

(a) Agnimitra
(b) Devabhuti
(c) Bhagabhadra
(d) Vasumitra

Q8. According to the Ministry of Finance, States' SGST revenue, including compensation released to States, in the post-GST period of 2017-18 to 2022-23 has achieved a tax buoyancy of _____.

(a) zero
(b) more than 1
(c) less than 1
(d) greater than 10

Q9. If a : b :: b : c, c = 9a and b = 6, then find the positive value of c.

(a) 18
(b) 22
(c) 15
(d) 17

Q10. In what time (in years) will Rs. 2,500 fetch an interest of Rs. 1,000 at 10% per year simple interest?

(a) 7
(b) 4
(c) 5
(d) 6

Q11. Which of the following provisions are covered under Article 4 of the Constitution of India?

(a) Emergency Provisions
(b) Fundamental Rights
(c) Financial Powers
(d) Laws for reorganisation of states

Q12. Which state had the highest multidimensional poverty index according to the National Multidimensional Poverty Index 2023?

(a) Uttar Pradesh
(b) Rajasthan
(c) Madhya Pradesh
(d) Bihar

Q13. What was the name of the team that emerged victorious in the Aditya Birla Memorial Polo Cup 2025?

(a) Jindal Panther
(b) Aditya Birla Polo Team
(c) Rajnigandha Achievers
(d) New Delhi Polo Team

Q14. Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. T has the exam immediately after P. R has the exam before S but after V. Q has the exam on Sunday. Only four people have exams between P and U. How many people have exams between V and P?

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

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Q15. A boat takes 27 minutes to go 37.2 km upstream. The ratio of the speed of the boat instill water to that of the stream is 8 : 5. How much total time (in hours) will the boat take to go 79.4 km upstream and 85.8 km downstream?

(a) 1.2
(b) 3.9
(c) 4.2
(d) 2.6

Q16. The ratio of the lengths of two corresponding sides of two similar triangles is 3 : 10.The ratio of the areas of these two triangles, in the order mentioned, is:

(a) 3 : 10
(b) 10 : 101
(c) 9 : 100
(d) 3√3 : 10

Q17. Which of the following best encapsulates the concept of a 'stored-program computer'as introduced by the Von Neumann architecture?

(a) A computer that can only execute a fixed set of instructions hardwired into its circuitry
(b) A computer that relies primarily on external storage devices for program execution
(c) A computer where both data and instructions are stored in the same primary memory for sequential execution
(d) A computer that utilises separate memory units for data and instructions to optimise processing speed

Q18. Which of the following is the smallest inhabited island in the Union Territory of Lakshadweep?

(a) Agatti
(b) Bitra
(c) Kavaratti
(d) Minicoy

Q19. Mukesh sold a car for Rs. 1,20,000 at 40% loss. For what price (in Rs.) should he sell the carto gain 55% profit?

(a) 3,09,998
(b) 3,09,999
(c) 3,10,002
(d) 3,10,000

Q20. Based on the English alphabetical order, three of the following four letter-cluster pairsare alike in a certain way and thus form a group. Which letter-cluster pair DOES NOTbelong to that group?

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

(a) PN – JD
(b) LJ – EZ
(c) QO – JE
(d) GE – ZU

Q21. Simplify:

$(\cot\theta)/(\text{cosec}\,\theta+1)+(\text{cosec}\,\theta+1)/(\cot\theta)$

(a) $2\sin\theta$
(b) $2\sec\theta$
(c) $2\text{cosec}\theta$
(d) $2\cos\theta$

Q22. The volume and height of a cylinder are 8470 $cm^3$and 2.2 cm, respectively. Find the radius (in cm) of the cylinder. Use $\pi = 22/7$

(a) 44
(b) 38
(c) 26
(d) 35

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Q23. In 1610, the Dutch established a factory in which of the following places, which laterbecame the headquarters of the Dutch directorate for the Coromandel region?

(a) Pulicat
(b) Surat
(c) Bombay
(d) Cochin

Q24. In Linux OS, which command is used to rename a file from oldname.txt to newname.txt?

(a) touch oldname.txt newname.txt
(b) cp oldname.txt newname.txt
(c) mv oldname.txt newname.txt
(d) Create oldname.txt newname.txt

Q25. The shorter side of a rectangle is 21 cm less than the longer side. The numerical value of its area is equal to 7 times the numerical value of its perimeter. What is the length (in cm) of its longer side?

(a) 56
(b) 47
(c) 42
(d) 39

Q26. Mr. D starts from Point P and drives 11 km towards the South. He then takes aleft turn, drives 6 km, turns right and drives 12 km. He then takes a left turn anddrives 1 km. He takes a final left turn derives 23 km and stops at Point Q. How far(shortest distance) and towards which direction should he drive in order to reach Point P again? (All turns are 90 degrees turns only unless specified.)

(a) 4 km towards the South
(b) 3 km towards the North
(c) 7 km towards the West
(d) 7 km towards the East

Q27. 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	12	16	30	20	17	38	15

(a) 46 years
(b) 74 years
(c) 49 years
(d) 58 years

Q28. The median of the observations 87, 56, 27, 31, 13, 39, 18, 80, 98, 92 and 25 is:

(a) 31
(b) 25
(c) 39
(d) 56

Q29. Refer to the following number and symbol series and answer the question that follows.Counting to be done from left to right only.

(Note: All numbers are single digit numbers only.)

(Left) & # © @ 7 2 5 1 4 © 4 2 £ & 9 1 % # 4 4 & 1 (Right)

How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by a number?

(a) 2
(b) 0
(c) 1
(d) 3

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Q30. Mr. STU starts from Point A and drives 33 km towards the east. He then takes a left turn,drives 21 km, turns left and drives 41 km. He then takes a left turn and drives 41 km. Hetakes a final left turn, drives 8 km and stops at Point P. How far (shortest distance) andin which direction should he drive in order to reach Point A again? (All turns are 90-degree turns only unless specified)

(a) 17 km to the north
(b) 13 km to the east
(c) 12 km to the south
(d) 20 km to the north

Q31. A cistern can be filled with water by a pipe in 10 hours, and it can be emptied by asecond pipe in 8 hours. If both the pipes are opened when the cistern is full, the time in which it will be emptied is:

(a) 45 hours
(b) 44 hours
(c) 40 hours
(d) 42 hours

Q32. If $a^2 + b^2 = 90$ and $ab = 27$, then find the possible value of $(a+b)/(a-b)$

(a) 3
(b) 2
(c) 1
(d) 4

Q33. The successive discounts of 29%, 18% and 9% are equivalent to a single discount of: (Rounded up to two decimal places.)

(a) 47.02%
(b) 44.35%
(c) 49.36%
(d) 48.05%

Q34. According to the Global Risks Perception Survey (GRPS) 2025, what percentage of respondents selected 'risk associated with extreme weather events' as a key concern for the year ahead?

(a) 22%
(b) 20%
(c) 14%
(d) 25%

Q35. Find the roots of the quadratic equation $5x^2 - 12x - 17 = 0$

(a) 1,(-17)/5
(b) -1,17/5
(c) 1,17/5
(d) -1,(-17)/5

Q36. Where was the 67^(th) Governing Body Meeting of the Asian Productivity Organization (APO) held in May 2025?

(a) . Bangkok, Thailand
(b) Tokyo, Japan
(c) Jakarta, Indonesia
(d) New Delhi, India

Q37. Seven people, A, B, L, M, N, S, and T are sitting in a row, facing north. Only two people sit to the right of T. Only two people sit between T and N. Only two people sit between M and A. A sits to the immediate left of T. B sits to the immediate right of S.

Who sits at third position from the left end of the line?

(a) A
(b) L
(c) T

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(d) D

Q38. The profit made on a product is 79%. What is the loss percentage (correct to two 3 decimal places) incurred on the sale if the figures of both the cost price and the selling price are interchanged?

(a) 45.18%
(b) 44.13%
(c) 46.79%
(d) 45.77%

Q39. If 2 is added to each even digit and 1 is subtracted from each odd digit in the number 74135296, how many digits will appear more than once in the new number thus formed?

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

Q40. Who among the following wrote the book 'I am a Soldier's wife'?

(a) Geetika Lidder
(b) Soumitra Chatterjee
(c) Dr. Aishwarya Pandit
(d) Namita Gokhale

Q41. In a certain code language,

A + B means 'A is the son of B',

A - B means 'A is the sister of B',

A x B means 'A is the wife of B' and

A ÷ B means 'A is the father of B'.

Based on the above, how is E related to K if 'E + F - G ÷ H x K' ?

(a) Wife's father's sister's son
(b) Wife's father's brother's son
(c) Wife's mother's brother's son
(d) Wife's mother's sister's son

Q42. Which country's football federation had its FIFA suspension lifted in May 2025 after resolving issues related to third-party interference?

(a) Democratic Republic of the Congo
(b) Republic of the Congo
(c) Cameroon
(d) Nigeria

Q43. YAGK is related to PRXB in a certain way based on the English alphabetical order. In the same way, OQWA is related to FHNR. To which of the following options is NPVZ related, following the same logic?

(a) EQMG
(b) EQGM
(c) EGQM
(d) EGMQ

Q44. Which of the following statements about DNA and RNA is true?

(a) DNA is not present in viruses.
(b) DNA acts only as a messenger molecule.
(c) RNA has multiple roles including catalytic functions.
(d) RNA acts solely as genetic material in all living organisms.

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Q45. Who handled judicial matters in the provinces during the reign of the Gupta Empire?

(a) Uparika
(b) King
(c) Gramika
(d) Ayuktaka

Q46. A sum of Rs. x amounts to Rs. 83,853 in 2 1/2 years at 12% p.a., interest compounded 10-monthly. What is the value of x?

(a) 61,000
(b) 64,000
(c) 63,000
(d) 62,000

Q47. What should come in place of the question mark (?) in the given series based on the English alphabetical order?

TWY RUW PSU NQS?

(a) LPQ
(b) LOQ
(c) LPR
(d) LOR

Q48. What is the significance of PowerPoint's "Protected View", while opening a downloaded file?

(a) Macros are enabled automatically
(b) The file is corrupted
(c) The presentation is encrypted and cannot be viewed
(d) It opens the file in a read-only mode, disabling most editing features

Q49. The average of eight numbers is 80. Find the least number if it is 1/16 of the sum of the numbers.

(a) 41
(b) 43
(c) 42
(d) 40

Q50. Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(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.)

(23, 253, 11)

(46, 1104, 24)

(a) (1, 12, 9)
(b) (4, 11, 2)
(c) (25, 525, 21)
(d) (25, 253, 10)

Q51. Which Article of the Constitution of India provides guidelines for states to make laws on the protection of monuments and objects of national importance?

(a) Article 48
(b) Article 49
(c) Article 50
(d) Article 48 A

Q52. The crest of a wave is the point where the disturbance is at:

(a) minimum point
(b) zero point
(c) constant point
(d) maximum point

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Q53. As per the Monetary Policy Statement, 2025-26, the Consumer Price Index (CPI) inflation for the financial year 2025-26 is projected at what percentage?

(a) 5.8%
(b) 6.0%
(c) 4.0%
(d) 5.4%

Q54. A student scored the following marks: 78, 85, 69, and 90 in four subjects. What score is required in the fifth subject to achieve an average of 80 marks across all five subjects?

(a) 88
(b) 78
(c) 82
(d) 94

Q55. A and B complete a work in 2 days. If A alone can do it in 38 days, then B alone can do 9-times of the same work in days.

(a) 9
(b) 19
(c) 10
(d) 20

Q56. If 1 is added to each even digit and 2 is subtracted from each odd digit in the number 2756493, then which of the following digits will be second from the left in the new number thus formed?

(a) 5
(b) 1
(c) 3
(d) 6

Q57. A motorist covers a distance of 30 km in 50 minutes by moving at a speed of x km/hr for the first 13 minutes, then moving at the speed of 2x km/hr for the next 25 minutes and then again moving at the speed of x km/hr for the rest of the journey. The value of x is equal to:

(a) 21
(b) 29
(c) 27
(d) 24

Q58. Which team did Vidarbha defeat in the 2024-25 Ranji Trophy final?

(a) Tamil Nadu
(b) Bengal
(c) Kerala
(d) Mumbai

Q59. The LCM of 48, 88 and another number, x, is 4752. Which of the following can be the value of x?

(a) 216
(b) 123
(c) 202
(d) 307

Q60. The prince Swati Tirunal was a patron of which of the following dance forms?

(a) Mohiniattam
(b) Kathakali
(c) Bharatanatyam
(d) Odissi

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Q61. What is the term for elected members serving on the board of a co-operative society?

(a) 5 years
(b) 3 years
(c) 4 years
(d) 6 years

Q62. What should come in place of the question mark (?) in the given series?

1312 1320 1330 1342 1356 ?

(a) 1368
(b) 1372
(c) 1374
(d) 1370

Q63. Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern.

JOL: FRO

MKH: INK

(a) LOA: HSD
(b) NRF: JUH
(c) RME: NPG
(d) HPD: DSG

Q64. India's trade structure under British colonial rule was molded to serve the economic interests of Britain. Which of the following best describes India's trade structure at the eve of Independence?

(a) Export of capital, import of labour
(b) Export of raw materials, import of manufactured goods
(c) Export of industrial goods, import of food
(d) Balanced two-way trade with Europe only

Q65. The popular music of Bengal, which represents spiritual folk song, is known as:

(a) Baul
(b) Bhakha
(c) Ovi
(d) Wanawan

Q66. The Kalapani dispute is between India and which of these?

(a) China
(b) Bangladesh
(c) Bhutan
(d) Nepal

Q67. X varies inversely as Y and Y varies inversely as Z. In a particular ca X = 1/16 and Z = 1/32 What will be the value of X when Z = 3?

(a) 6
(b) 7
(c) 9
(d) 8

Q68. Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 5 @ 6 # 8 $ % 1 9 ^ 7 ? 2 3 ? 4 (Right)

How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by another number?

(a) Three
(b) More than three

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(c) One
(d) Two

Q69. Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

LOH 1, JMG 8, HKF 27, FIE 64, ?

(a) DGD 125
(b) DCD 144
(c) DFD 125
(d) DAD 144

Q70. 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:

All bottles are glasses.

No glasses are plates.

Some plates are spoons.

Conclusion

(1) No bottles are plates.

(II) No spoons are glasses.

(a) Both Conclusion (1) and (II) are true
(b) Only Conclusion (1) is true
(c) Neither Conclusion (1) nor (II) is true
(d) Only Conclusion (II) is true

Q71. A (x, 5), B (3, -4) and C (-6, y) are the three vertices of a triangle ABC. If (3.5, 4.5) is the centroid of the triangle, find the point (x + 3, y - 4)

(a) (16.5, 8.5)
(b) (8.5, 16.5)
(c) (15.5, 9.5)
(d) (13.5, 12.5)

Q72. Under its original jurisdiction, the Supreme Court of India can adjudicate disputes between:

(a) The Centre and one or more states
(b) Two private citizens from different states
(c) Two municipal corporations of different states
(d) A state government and a private corporation

Q73. By how much is 60% of 40 greater than 2/5 of 55?

(a) 2
(b) 1
(c) 3
(d) 4

Q74. Consider the following statements regarding the Minimum Alternate Tax (MAT) in Indian tax regime.

1. MAT is calculated at 15% on the book profit or at the usual corporate rates, and whichever is lower is payable as tax.

2. Only domestic companies in India fall under this provision.

3. MAT is an important tool with which tax avoidance can be prevented.

Which of the statements given above is/are correct?

(a) Only 1 and 3
(b) Only 3
(c) 1, 2 and 3

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(d) Only 1 and 2

Q75. Which of the following is a major challenge facing the development of inland waterways in India?

(a) Minimal environmental concerns
(b) High levels of private investment
(c) Lack of adequate terminal facilities
(d) Well-established infrastructure

Q76. 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 :: ?

#: MTZ :: KRX: %

(a) = HOU, % = PWP
(b) = HYU, % = PWC
(c) # = YOU, % = PWC
(d) = HOU, % = PWC

Q77. Which position within the Union Council of Ministers of India is immediately below the Prime Minister in hierarchy?

(a) Deputy Minister
(b) Parliamentary Secretary
(c) Minister of State
(d) Cabinet Minister

Q78. Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Note: All numbers are single digit numbers only.)

(Left) € & % & 5 6 3 1 © 1 4 6 @ £ @ $ 8 8 £ 8 % 1 (Right)

How many such numbers are there, each of which is immediately preceded by a symbol and also immediately followed by a symbol?

(a) 2
(b) 3
(c) 1
(d) 0

Q79. If $x + 1/x = 17$ then $x^2+1/(x^2)$. is

(a) 277
(b) 288
(c) 287
(d) 279

Q80. What should come in place of the question mark (?) in the given series? 21, 52, 87, 126, 169, ?

(a) 227
(b) 221
(c) 232
(d) 216

Q81. Seven boxes, G, H, I, J, O,P and Q, are kept one over the other but not necessarily in the same order. Only two boxes are kept below Q. Only one box is kept above G. Only one box is kept between G and H. I is kept immediately above J. P is kept at some place below O. How many boxes are kept between O and I?

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

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Q82. Firoz ranked 38th from the top and 28th from the bottom in his class. How many students are there in his class?

(a) 63
(b) 64
(c) 66
(d) 65

Q83. What is the nature of wavefront from a point source in an isotropic medium?

(a) Elliptical
(b) Cylindrical
(c) Spherical
(d) Plane

Q84. Which of the following statements about the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme launched in 2024 is/are correct?

1. The scheme will remain in force until 31 March 2026.
2. One of the key aims of PM E-DRIVE is to provide direct subsidies to petrol and diesel vehicles to improve their fuel efficiency.
3. The scheme includes provisions to support the development of EV charging infrastructure.
4. PM E-DRIVE focuses exclusively on private vehicle ownership.

(a) Only 1 and 3
(b) 2 and 4
(c) Only 1, 3 and 4
(d) Only 1

Q85. Which hill station is located in the Nilgiri Hills?

(a) Ooty
(b) Darjeeling
(c) Shimla
(d) Mussoorie

Q86. Which of the following movements, though initially religious in nature, later evolved into a peasant movement under the leadership of Dudu Miyan, son of Haji Shariatullah

(a) Bhill Uprising
(b) Wahabi Movement
(c) Farazi Movement
(d) Mappila Uprising

Q87. Which of the following statement(s) is/are correct regarding the Round Table Conferences held from 1930 to 1932?

(a) The Round Table Conferences were held to discuss Constitutional Reforms and India's future government under British rule.
(b) Mahatma Gandhi attended only the Second Round Table Conference in 1931.

(a) Only (a)
(b) Neither (a) nor (b)
(c) Only (b)
(d) Both (a) and (b)

Q88. Consider the following statements regarding the Africa India Key Maritime Engagement (AIKEYME) conducted in mid-April 2025.

1. AIKEYME is a multilateral exercise co-hosted by the Indian Navy and Tanzania Peoples' Defence Force (TPDF).
2. The exercise was planned in Maputo, Mozambique, and tackled maritime security threats like piracy.
3. The exercise happened in two phases: the Harbour Phase included training on Seamanship and Visit Board Search and Seizure (VBSS), while the Sea Phase included Small Arms firing, Helicopter Operations and Search and Rescue.

Which of the above statements are correct?

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(a) Only 1 and 2
(b) 1, 2 and 3
(c) Only 1 and 3
(d) Only 3

Q89. A group of numbers and symbols is coded using letter codes as per the codes given below and the conditions that follow. Study the given codes and conditions and answer the question that follows.

Note: If none of the conditions apply, then codes for the respective number/symbol are to be followed directly as given in the table.

Number/symbol	6	÷	7	%	@	•	8	4	•	2	#	3	9	&
Code	P	E	S	H	W	Q	G	T	I	M	Z	A	V	R

Conditions:

If the first element is a prime number and the last element is an even number, then the codes for these two (first and last elements) are to be interchanged. If both the second and the fourth elements are perfect numbers, then the fourth number is to be coded as the code for the second element.

If the third element is a symbol, then it is to be coded as a.

What will be the code for the following group?

3 ÷ 7 @ 4

(a) AESWA
(b) AESWT
(c) TESWA
(d) TEAWA

Q90. The simplified value of 48 - (- 18) × (- 60 - 72 - 92) ÷ [8×{2 + (- 6)(- 9)}] is:

(a) 36
(b) 37
(c) 34
(d) 39

Q91. Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?

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

(a) DGKQ
(b) GKNT
(c) NRUA
(d) QUXD

Q92. In the following triads, each group of letters is related to the subsequent one following a certain logic. Select from the given options, the one that follows the same logic.

WORK-OWRK - KOWR

FERN - EFRN - NEFR

(a) QUIT- UQIT - TUIQ
(b) RATE - ARTE - ATER
(c) WIND-IWND - DIWN
(d) DRUM - DURM - MURD

Q93. If 'P' stands for 'x', 'Q' stands for '+', 'R' stands for '-' and 'S' stands for '+', then what will come in place of the question mark (?) in the following equation?

(11 S 7) P 3 R 41 S 8 P 12 R 54 = ?

(a) 40
(b) 55

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(c) 32
(d) 70

Q94. Which keyboard shortcut is used to cut (move) text in MS Word?
(a) Ctrl + V
(b) Ctrl + X
(c) Ctrl + Z
(d) Ctrl + C

Q95. In a certain code language, 'YOUR' is coded as '5683' and 'UNIT' is coded as '2519'.
What is the code for 'U' in the given code language?
(a) 8
(b) 9
(c) 2
(d) 5

Q96. Vikram, Anjali and Raj started a business in partnership, investing in the ratio of 7: 3: 20, respectively. At the end of the year, they earned a profit of Rs. 28,800, which is 25% of their total investment. How much did Anjali invest (inRs.)?
(a) Rs. 11,682
(b) Rs. 11,520
(c) Rs. 11,564
(d) Rs. 11,472

Q97. Simplify the following:
14/9 x 52/9 x 324 + 93/4
(a) 2453.75
(b) 2452.85
(c) 2451.25
(d) 2477.55

Q98. What happens if you start a new blank presentation while another presentation is already open in MS PowerPoint?
(a) A new MS PowerPoint window opens with the blank presentation.
(b) MS PowerPoint displays an error message.
(c) The current presentation closes automatically.
(d) The slides from the current presentation are copied to the new one.

Q99. A, B, L, M, S, T and Z are sitting around a circular table facing the centre. T sits third to the left of S. M sits second to the left of A. Only S sits between L and M. B is not an immediate neighbour of T. How many people sit between Z and M when counted from the right of Z?
(a) 2
(b) 1
(c) 3
(d) 4

Q100. In March 2025, researchers from Northwestern University identified which smartwatch- based metric as a useful predictor of cardiovascular health risks?
(a) Wearable Activity Pressure Estimate Scale (WAPES)
(b) Resting Pulse-to-Movement Ratio (RPMR)
(c) Weekly Step-to-Cardiac Output Index (WSCO)
(d) Daily Heart Rate Per Step (DHRPS)

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ANSWER KEY

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

SOLUTIONS

Q1. Answer: (c) 13.79%

Shortcut Trick

Required percentage = [r ÷ (100 + r)] × 100

Given r = 16%

Required % = [16 ÷ (100 + 16)] × 100

Required % = [16 ÷ 116] × 100 = 400 ÷ 29 ≈ 13.79%

Therefore The correct answer is 13.79%.

Alternate Method

Given:

A's salary is 16% more than B's salary.

=> Let B's salary = 100

=> A's salary = 100 + 16% of 100 = 116

Calculations:

=> Difference between A and B = 116 − 100 = 16

=> B's salary is less than A's salary by = (Difference ÷ A's salary) × 100

=> Percentage less = (16 ÷ 116) × 100

=> Percentage less = (4 ÷ 29) × 100

=> Percentage less = 400 ÷ 29 = 13.7931...

=> Correct to two decimal places = 13.79%

Therefore The correct answer is 13.79%.

Additional Information

Percentage Comparison Rule

If A is r% more than B, then B is [r ÷ (100 + r)] × 100% less than A.

Inverse Case

If A is r% less than B, then B is [r ÷ (100 − r)] × 100% more than A.

Base Value Concept

The percentage change depends on the denominator (base value). When comparing B to A, A's value becomes the base.

Q2. Answer: (a) Luni river

The Correct answer is Luni River.

Key Points

• The Luni River is the largest river in the Thar Desert region of northwestern India.

• It originates from the and flows through the desert.

• The Luni River is known for its saline water, especially in the lower reaches.

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• It finally disappears into the marshy lands of the Rann of Kutch without forming a delta or flowing into the sea.

• Due to its salinity, the Luni River is not suitable for drinking or irrigation, except in its upper course where the water is relatively fresh.

• The river supports life in the arid region by enabling limited agricultural activities and acts as a lifeline for the settlements along its course.

• Its tributaries include Sukri, Jawai, Bandi, and Guhiya rivers, which contribute to its seasonal flow.

Additional Information

• Yamuna River

• The Yamuna River is a major tributary of the Ganges River and flows through northern India.

• Its source is at the Yamunotri glacier in the Uttarakhand Himalayas.

• The Yamuna is significant for its use in agriculture, drinking water, and industrial activities in the regions it flows through.

• It does not flow through the Thar Desert region.

• Sutlej River

• The Sutlej River is one of the five rivers of Punjab and is a major river in the Indus River system.

• It originates in the Tibet region and flows through Himachal Pradesh and Punjab.

• The Sutlej River does not pass through the Thar Desert region.

• Ghaggar River

• The Ghaggar River is a seasonal river that originates in Himachal Pradesh.

• It flows through Haryana and Punjab and is believed to be the remnant of the ancient Saraswati River.

• It does not flow through the Thar Desert region.

Q3. Answer: (a) 3

The given code language is:

Thus, 'S' is coded as '3'.

Hence, the correct answer is "Option 1".

Q4. Answer: (b) Rs. 3,800

Shortcut Trick

Subtract the two scenarios: (19 chairs + 19 tables) − (15 chairs + 19 tables) = Rs. 5,700 − Rs. 5,300.

This gives 4 chairs = Rs. 400 => Cost of 1 chair = Rs. 100.

From the second set: 19 tables = 5,700 − (19 × 100) = Rs. 3,800 => Cost of 1 table = Rs. 200.

Required cost for 12 chairs and 13 tables = (12 × 100) + (13 × 200) = 1,200 + 2,600 = Rs. 3,800.

Therefore The correct answer is Rs. 3,800.

Alternate Method

Given:

Cost of 15 chairs and 19 tables = Rs. 5,300

Cost of 19 chairs and 19 tables = Rs. 5,700

Formula Used:

Total Cost = (Number of chairs × Price per chair) + (Number of tables × Price per table)

Calculations:

=> Let C be the cost of one chair and T be the cost of one table.

=> 15C + 19T = 5300 — (Eq. 1)

=> 19C + 19T = 5700 — (Eq. 2)

=> Subtracting Eq. 1 from Eq. 2:

=> (19C − 15C) + (19T − 19T) = 5700 − 5300

=> 4C = 400

=> C = 100

=> Substitute C = 100 in Eq. 2:

=> 19(100) + 19T = 5700

=> 1900 + 19T = 5700

=> 19T = 5700 − 1900 = 3800

=> T = 3800 ÷ 19 = 200

=> Cost of 12 chairs and 13 tables = 12C + 13T

=> Cost = 12(100) + 13(200) = 1200 + 2600 = 3800

Therefore The correct answer is Rs. 3,800.

Additional Information

Simultaneous Linear Equations

Equations with two variables can be solved using the elimination method (removing one variable) or the substitution method.

Unitary Method

Finding the value of a single unit first helps in calculating the value of any required number of units easily.

Total Cost Formula

Total Cost = ∑ (Rate_i × Quantity_i). For multiple items, sum the individual costs of each item category.

Q5. Answer: (b) 6

Given:

1 is added to each odd digit and 1 is subtracted from each even digit in the number 8146752.

Given	8	1	4	6	7	5	2
Operation	-1	+1	-1	-1	+1	+1	-1
New number	7	2	3	5	8	6	1

The new number formed is 7235861.

The last digit from the left is 1.

The first digit from the left is 7.

Difference between the last and first digits = 7 - 1 = 6.

Hence, the correct answer is "Option 2".

Q6. Answer: (c) 5

The Correct answer is 5 years.

Key Points

• The Kartarpur Corridor is a landmark initiative between India and Pakistan to facilitate Sikh pilgrims' travel to the holy site of Gurdwara Darbar Sahib, Kartarpur, in Pakistan.

• It connects Dera Baba Nanak in the Gurdaspur district of Punjab, India, to Kartarpur Sahib in Pakistan.

• In October 2024, both nations agreed to extend the agreement for an additional 5 years, showing mutual cooperation and respect for religious sentiments.

• The corridor was originally inaugurated on 9th November 2019, marking the 550th birth anniversary of Guru Nanak Dev Ji.

• The agreement allows Sikh pilgrims to visit the site without a visa, provided they obtain a permit.

• The extension reflects the corridor's significance in fostering peaceful relations and promoting cultural diplomacy between the two nations.

• The Gurdwara Kartarpur Sahib is where Guru Nanak Dev Ji spent the last years of his life, making it one of the most revered places for Sikhs.

• The corridor is a symbol of cross-border religious harmony, and its extension for 5 years ensures continued access for pilgrims to this holy site.

Q7. Answer: (b) Devabhuti

The Correct answer is Devabhuti.

Key Points

• Devabhuti was the last ruler of the Shunga Dynasty, which ruled parts of India from approximately 185 BCE to 75 BCE.

• The Shunga Dynasty was founded by Pushyamitra Shunga, who overthrew the Mauryan Empire.

• Devabhuti's reign marked the decline of the Shunga Dynasty, and he is believed to have been overthrown by his minister Vasudeva Kanva, who established the Kanva Dynasty.

• Historical accounts suggest that Devabhuti was known for his indulgent lifestyle, which led to political instability and weakened the Shunga state.

• The Shunga Dynasty is significant in Indian history for its contributions to art, culture, and education, including the development of Buddhist stupas like those at Sanchi and Bharhut.

• The dynasty primarily ruled over areas of present-day northern and central India.

Additional Information

• Agnimitra

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• Agnimitra was the second ruler of the Shunga Dynasty and the son of Pushyamitra Shunga, the dynasty's founder.
• He is a prominent character in the Sanskrit play Mālavikāgnimitram, written by Kalidasa.
• Agnimitra is credited with consolidating the Shunga rule and expanding its influence.
• Bhagabhadra
• Bhagabhadra was a ruler of the Shunga Dynasty who is known from historical inscriptions, including a Heliodorus pillar inscription at Vidisha.
• The Heliodorus pillar, erected by a Greek ambassador, suggests cultural exchange during his reign.
• Vasumitra
• Vasumitra is believed to have been a successor of Agnimitra in the Shunga Dynasty.
• He is mentioned in some historical texts as having participated in military campaigns to secure the Shunga Empire's frontiers.

Q8. Answer: (b) more than 1

The Correct answer is more than 1.

Key Points

• In the context of taxation, tax buoyancy measures the responsiveness of tax revenue growth to the growth of Gross Domestic Product (GDP).
• A tax buoyancy of more than 1 indicates that tax revenue grows faster than the GDP, showcasing an efficient tax system.
• As per the Ministry of Finance, the SGST (State Goods and Services Tax) revenue, including compensation to states, has consistently demonstrated a buoyancy above 1 in the post-GST period from 2017-18 to 2022-23.
• This reflects the success of the GST implementation in ensuring sustainable revenue growth for state governments while streamlining the taxation system.
• The introduction of GST replaced a complex tax structure with a unified system, enhancing compliance and improving revenue collection efficiency.
• The government has also provided compensation to states for any revenue shortfall due to the transition to GST, ensuring financial stability for states.
• This buoyancy signifies that GST has been instrumental in improving the tax-to-GDP ratio, contributing to fiscal consolidation goals.

Additional Information

• Zero
• A tax buoyancy of zero implies no growth in tax revenue despite GDP growth, indicating inefficiency in the tax system.
• This scenario is unlikely for GST, as the tax reform has been designed to improve compliance and revenue collection.
• Less than 1
• A tax buoyancy of less than 1 would mean that tax revenue grows at a slower rate than GDP, which is not reflective of the GST revenue trends observed in India.
• GST implementation has significantly improved tax collection efficiency, ensuring buoyancy above 1.
• Greater than 10
• A tax buoyancy of greater than 10 is an extreme and unrealistic figure, as it would imply an exceptionally high growth in tax revenue compared to GDP growth.
• Such a scenario is unlikely and not observed in the context of India's GST revenue.

Q9. Answer: (a) 18

Shortcut Trick

Given a, b, c are in continued proportion (a : b :: b : c).

The relation is $b^2 = ac$.

Substitute b = 6 and c = 9a (so a = c/9).

$6^2 = (c/9) \times c \Rightarrow 36 = c^2 / 9 \Rightarrow c^2 = 324 \Rightarrow c = 18$.

Therefore The correct answer is 18.

Alternate Method

Given:

Proportion: a : b :: b : c

Values: b = 6, c = 9a

Formula Used:

For continued proportion, Product of extremes = Product of means => $ac = b^2$

Calculations:

=> a/b = b/c

=> $b^2 = a \times c$

=> Substitute $c = 9a \rightarrow a = c/9$

=> $6^2 = (c/9) \times c$

=> $36 = c^2 / 9$

=> $c^2 = 36 \times 9$

=> $c^2 = 324$

=> $c = \sqrt{324}$

=> c = 18

Therefore The correct answer is 18.

Additional Information

Continued Proportion

Three numbers a, b, and c are in continued proportion if a/b = b/c. Here, b is called the mean proportional between a and c.

Mean Proportional Formula

The mean proportional b between two numbers a and c is calculated as $b = \sqrt{(ac)}$.

Third Proportional

In the proportion a : b :: b : c, the term c is known as the third proportional to a and b, where $c = b^2/a$.

Q10. Answer: (b) 4

Shortcut Trick

Interest for 1 year = 10% of Rs. 2,500 = Rs. 250

Total interest to be fetched = Rs. 1,000

Time = Total Interest ÷ Interest per year

=> Time = 1000 ÷ 250 = 4 years

Therefore The correct answer is 4 years.

Alternate Method

Given:

Principal (P) = Rs. 2,500

Simple Interest (SI) = Rs. 1,000

Rate (R) = 10% per annum

Formula Used:

Simple Interest (SI) = (P × R × T) ÷ 100

Calculations:

=> 1000 = (2500 × 10 × T) ÷ 100

=> 1000 = 250 × T

=> T = 1000 ÷ 250

=> T = 4 years

Therefore The correct answer is 4 years.

Additional Information

Total Amount in Simple Interest

Amount (A) is the sum of Principal (P) and Interest (I). Formula: A = P + (P × R × T) ÷ 100 or A = P(1 + RT/100).

Compound Interest (CI) vs Simple Interest (SI)

Simple interest is calculated only on the principal, whereas CI is calculated on the principal plus the accumulated interest of previous periods.

Rule of 72

A quick way to estimate how long it takes to double your money: Time ≈ 72 ÷ Rate (usually applied to Compound Interest).

Q11. Answer: (d) Laws for reorganisation of states

The Correct answer is Laws for reorganisation of states.

Key Points

• Article 4 of the Indian Constitution deals specifically with the reorganisation of states and the related laws.

• It states that any laws enacted under Article 2 (admission or establishment of new states) or Article 3 (formation of new states and alteration of areas, boundaries, or names of existing states) are not considered amendments to the Constitution.

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• This provision under Article 4 ensures that such laws can be passed by a simple majority in the Parliament rather than requiring the more stringent process of a constitutional amendment.

• The reorganisation of states may involve altering the boundaries, names, or territories of states based on administrative, linguistic, cultural, or other considerations.

• Examples of state reorganisation include the creation of Telangana in 2014 and the bifurcation of Andhra Pradesh.

Additional Information

• Emergency Provisions

• Emergency Provisions are covered under Articles 352 to 360 of the Indian Constitution.

• They allow the President to declare an emergency in the event of war, external aggression, armed rebellion, financial instability, or failure of constitutional machinery in a state.

• There are three types of emergencies: National Emergency, State Emergency, and Financial Emergency.

• Fundamental Rights

• Fundamental Rights are enshrined in Part III of the Indian Constitution and cover Articles 12 to 35.

• These rights include the Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, and the Right to Constitutional Remedies.

• They protect the citizens against arbitrary actions of the state and ensure individual liberty.

• Financial Powers

• Financial Powers are primarily covered under Articles 264 to 293 of the Indian Constitution.

• These articles deal with the distribution of financial resources between the Union and the States, taxation powers, and the management of consolidated funds.

• It also includes the role of institutions like the Finance Commission in ensuring equitable distribution of revenues.

Q12. Answer: (d) Bihar

The correct answer is Bihar.

Key Points

• Bihar recorded the highest Multidimensional Poverty Index (MPI) as per the National Multidimensional Poverty Index 2023.

• The National Multidimensional Poverty Index is based on multiple deprivations experienced by households in areas such as health, education, and standard of living.

• Bihar, being one of India's most populous states, has faced persistent challenges in reducing poverty levels due to limited industrialization and dependency on agriculture.

• The state has shown significant efforts in improving various sectors, but it still struggles with key areas like malnutrition, lack of access to quality education, and inadequate infrastructure.

• In Bihar, a large percentage of the population experiences deprivation in aspects such as sanitation, electricity, and housing, leading to its poor MPI ranking.

• The MPI serves as a tool for assessing poverty holistically and identifying areas that require targeted intervention.

Additional Information

• Uttar Pradesh

• Uttar Pradesh is the most populous state in India and has made strides in reducing poverty, but it still faces challenges in areas like education, healthcare, and employment opportunities.

• The state has implemented several welfare schemes to improve living standards, but the sheer size of the population poses difficulties.

• Rajasthan

• Rajasthan has a significant rural population, and poverty reduction efforts have been focused on improving water resources, agriculture, and rural development.

• The state has vast deserts, which create unique challenges in terms of infrastructure development.

• Madhya Pradesh

• Madhya Pradesh has a large tribal population, and poverty alleviation in these areas often requires targeted interventions addressing livelihood opportunities and education.

• The state has shown improvement in poverty reduction through government programs, but challenges remain in remote areas.

Q13. Answer: (c) Rajnigandha Achievers

The Correct answer is Rajnigandha Achievers.

Key Points

• Rajnigandha Achievers emerged victorious in the Aditya Birla Memorial Polo Cup 2025, showcasing exceptional skill and teamwork.

• The team is known for its strategic gameplay and consistency in high-stakes polo tournaments.
• The Aditya Birla Memorial Polo Cup is a prestigious event that draws some of the best polo teams from across the country.
• The tournament is held annually and is recognized as one of the significant events in the Indian polo circuit.
• Polo is a fast-paced equestrian sport that requires a combination of athleticism, strategy, and coordination between players and their horses.
• Winning such a tournament reflects the dedication and commitment of the team toward excellence in the sport.

Additional Information
• Jindal Panther
• Jindal Panther is a polo team associated with the Jindal Group, a prominent industrial conglomerate in India.
• The team is known for its strong performance in various polo tournaments across the country.
• Aditya Birla Polo Team
• This team represents the Aditya Birla Group, a leading multinational conglomerate.
• The team actively participates in polo tournaments and promotes the sport of polo in India.
• New Delhi Polo Team
• New Delhi Polo Team is a well-established polo team based in the capital city of India.
• They often compete in regional and national-level polo tournaments.

Q14. Answer: (a) One

Given : Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending on Sunday of the same week.

1) Q has the exam on Sunday.

2) Only four people have exams between P and U.

3) T has the exam immediately after P.

Weekday	Person
Monday	P
Tuesday	T
Wednesday	
Thursday	
Friday	
Saturday	U
Sunday	Q

4) R has the exam before S but after V.

Final arrangement:

Weekday	Person
Monday	P
Tuesday	T
Wednesday	V
Thursday	R
Friday	S
Saturday	U
Sunday	Q

There is 1 person who has an exam between V and P.

Hence, the correct answer is "Option 1".

Q15. Answer: (a) 1.2

Shortcut Trick

Upstream speed (U) = 37.2 km / (27/60) h = 82.67 kmph

Ratio Boat : Stream = 8 : 5 → Upstream ratio = 8 − 5 = 3 units; Downstream ratio = 8 + 5 = 13 units.

3 units = 82.66 kmph => 1 unit = 27.55 kmph => Downstream (13 units) = 358.22 kmph.

Total Time = (79.4 / 82.66) + (85.8 / 358.22) ≈ 0.96 + 0.24 = 1.2 hours.

Therefore The correct answer is 1.2 hours.

Alternate Method

Given: Upstream Distance = 37.2 km, Time = 27 min, Ratio of Boat speed (v) to Stream speed (u) = 8 : 5.

Formula: Speed = Distance ÷ Time | Upstream Speed (U) = v − u | Downstream Speed (D) = v + u.

=> U = 37.2 ÷ (27/60) = (37.2 × 60) ÷ 27 = 2232 ÷ 27 = 82.666... kmph.

=> Let v = 8x and u = 5x. Then U = 8x − 5x = 3x.

=> 3x = 82.666... => x = 27.555... kmph.

=> Downstream Speed (D) = 8x + 5x = 13x = 13 × 27.555... = 358.222... kmph.

=> Time for 79.4 km upstream = 79.4 ÷ 82.666... = 0.9605 hours.

=> Time for 85.8 km downstream = 85.8 ÷ 358.222... = 0.2395 hours.

=> Total Time = 0.9605 + 0.2395 = 1.2 hours.

Therefore The correct answer is 1.2 hours.

Additional Information

Relative Speed in Water

Upstream speed is the difference (v − u) and Downstream speed is the sum (v + u) of the boat and stream speeds.

Conversion of Time

To convert minutes to hours, divide by 60. To calculate speed in kmph, distance in km must be divided by time in hours.

Boat Speed Calculation

Speed of boat in still water (v) = (Downstream + Upstream) ÷ 2 and Stream speed (u) = (Downstream − Upstream) ÷ 2.

Q16. Answer: (c) 9 : 100

Shortcut Trick

For similar triangles, the ratio of their areas is equal to the square of the ratio of their corresponding sides.

Ratio of sides = 3 : 10

Ratio of areas = $3^2 : 10^2$

=> Ratio of areas = (3 × 3) : (10 × 10) = 9 : 100

Therefore The correct answer is 9 : 100.

Alternate Method

Given:

Ratio of corresponding sides of two similar triangles = 3 : 10

Formula Used:

Area1 / Area2 = $(Side1 / Side2)^2$

Calculations:

Let the areas of the two triangles be A1 and A2.

Let the corresponding sides be s1 and s2.

Q17. Answer: (c) A computer where both data and instructions are stored in the same primary memory for sequential execution

The Correct answer is A computer where both data and instructions are stored in the same primary memory for sequential execution.

Key Points

• The Von Neumann architecture introduced the concept of a stored-program computer.

• In this architecture, both data and instructions are stored together in the same memory unit, enabling the processor to access them sequentially.

• This design uses a single memory space for storing both programs (instructions) and data, eliminating the need for separate storage units.

• The stored-program concept allows flexibility, enabling computers to execute different programs without hardware modifications.

• The architecture consists of key components such as a Central Processing Unit (CPU), memory, and I/O devices.

• The CPU executes instructions sequentially, fetching them from memory, decoding them, and performing operations as specified.

• This model laid the foundation for modern computing systems and is used in almost all general-purpose computers today.
• The concept revolutionized computing by introducing programmability and reducing dependency on external hardware for processing instructions.

Additional Information

• A computer that can only execute a fixed set of instructions hardwired into its circuitry
• This describes an early computing model, such as those used in the pre-Von Neumann era.
• These systems, often referred to as hardwired computers, lacked flexibility and required physical rewiring to change instructions.
• A computer that relies primarily on external storage devices for program execution
• This describes systems that depend heavily on external media such as tapes or disks for program storage and execution.
• Such systems are less efficient compared to the stored-program model introduced by Von Neumann.
• A computer that utilises separate memory units for data and instructions to optimise processing speed
• This describes the Harvard architecture, which is distinct from the Von Neumann model.
• In the Harvard architecture, separate memory units for data and instructions enable parallel access, improving processing speed.

Q18. Answer: (b) Bitra

The Correct answer is Bitra.

Key Points

• Bitra is the smallest inhabited island in the Union Territory of Lakshadweep.
• It has an area of approximately 0.105 square kilometers, making it the tiniest inhabited landmass in the region.
• The island is known for its pristine natural beauty and is part of the archipelago of 36 islands, out of which only 10 are inhabited.
• Bitra is one of the most sparsely populated islands in Lakshadweep.
• The island is located in the Arabian Sea, and its inhabitants primarily rely on fishing and coconut cultivation for their livelihood.
• Bitra is surrounded by a rich ecosystem, including coral reefs and marine biodiversity, making it significant for ecological studies.
• It is part of the Lakshadweep Islands, which are governed under the administration of India.

Additional Information

• Agatti
• Agatti is another inhabited island in the Lakshadweep archipelago.
• It is known for its beautiful beaches and coral reefs, making it a popular destination for tourism.
• The island has an area of approximately 3.84 square kilometers.
• Agatti is famous for its marine biodiversity, including species of fish and turtles.
• Kavaratti
• Kavaratti is the capital of the Union Territory of Lakshadweep.
• It is one of the most developed islands and serves as the administrative headquarters.
• The island covers an area of 3.93 square kilometers.
• Kavaratti is known for its water sports activities and its marine aquarium.
• Minicoy
• Minicoy is the second-largest island in Lakshadweep.
• It has an area of 4.8 square kilometers.
• Minicoy is culturally distinct, as it has influences from the Maldive Islands.
• The island is known for its lighthouse, which is one of the oldest landmarks in the region.

Q19. Answer: (d) 3,10,000

Shortcut Trick

Ratio method: Let the Cost Price (CP) be 100%.

First selling price (SP1) = 100% − 40% = 60%.

Desired selling price (SP2) = 100% + 55% = 155%.

Given: 60% → 1,20,000. So, 1% → 1,20,000 ÷ 60 = 2,000.

Required SP2 = 155 × 2,000 = 3,10,000.

Therefore The correct answer is Rs. 3,10,000.

Alternate Method

Given: Selling Price (SP1) = Rs. 1,20,000, Loss% = 40%, Required Profit% = 55%.

Formulas: CP = SP × 100 ÷ (100 − Loss%); SP = CP × (100 + Profit%) ÷ 100.

=> Cost Price (CP) = 1,20,000 × 100 ÷ (100 − 40) = 1,20,000 × 100 ÷ 60.
=> Cost Price (CP) = 2,00,000.
=> New Selling Price (SP2) = 2,00,000 × (100 + 55) ÷ 100.
=> New Selling Price (SP2) = 2,00,000 × 155 ÷ 100 = 2,000 × 155.
=> New Selling Price (SP2) = 3,10,000.
Therefore The correct answer is Rs. 3,10,000.
Additional Information
Cost Price & Selling Price Relationship
When an object is sold at a loss, the Cost Price is always greater than the Selling Price. CP = SP + Loss.
Direct SP Calculation
To find the new SP directly: SP2 = SP1 × (100 + Profit%) ÷ (100 − Loss%).

Q20. Answer: (a) PN – JD

The logic followed here is.
Option (1) 'PN - JD':
Option (2) 'LJ - EZ':
Option (3) 'QO - JE':
Option (4) 'GE - ZU':
Thus, option 1 is odd one.
Hence, the correct answer is "Option 1".

Q21. Answer: (b) 2secθ

Shortcut Trick
Put θ = 30° in the given expression.
cot 30° = √3 and cosec 30° = 2.
Expression = [√3 / (2 + 1)] + [(2 + 1) / √3] = [√3 / 3] + [3 / √3] = [1 / √3] + √3 = (1 + 3) / √3 = 4 / √3.
Check options for θ = 30°: 2sec 30° = 2 × (2 / √3) = 4 / √3.
Therefore The correct answer is 2secθ.
Alternate Method
Given: [cot θ / (cosec θ + 1)] + [(cosec θ + 1) / cot θ]
Formula Used: $\text{cosec}^2\theta - \cot^2\theta = 1 \Rightarrow \cot^2\theta = \text{cosec}^2\theta - 1 = (\text{cosec}\ \theta + 1)(\text{cosec}\ \theta - 1)$
=> Taking LCM: $[\cot^2\theta + (\text{cosec}\ \theta + 1)^2] / [\cot\theta(\text{cosec}\ \theta + 1)]$
=> $[\cot^2\theta + \text{cosec}^2\theta + 1 + 2\text{cosec}\ \theta] / [\cot\theta(\text{cosec}\ \theta + 1)]$
=> $[(\text{cosec}^2\theta - 1) + \text{cosec}^2\theta + 1 + 2\text{cosec}\ \theta] / [\cot\theta(\text{cosec}\ \theta + 1)]$
=> $[2\text{cosec}^2\theta + 2\text{cosec}\ \theta] / [\cot\theta(\text{cosec}\ \theta + 1)]$
=> $[2\text{cosec}\ \theta\ (\text{cosec}\ \theta + 1)] / [\cot\theta\ (\text{cosec}\ \theta + 1)]$
=> $2\text{cosec}\ \theta / \cot\theta = 2(1 / \sin\theta) / (\cos\theta / \sin\theta)$
=> $2 / \cos\theta = 2\sec\theta$
Therefore The correct answer is 2secθ.
Additional Information
Trigonometric Identities
Standard Pythagorean identities include $\sin^2\theta + \cos^2\theta = 1$, $1 + \tan^2\theta = \sec^2\theta$, and $1 + \cot^2\theta = \text{cosec}^2\theta$.
Reciprocal Relations
$\sec\theta = 1/\cos\theta$, $\text{cosec}\ \theta = 1/\sin\theta$, and $\cot\theta = \cos\theta/\sin\theta$.

Q22. Answer: (d) 35

Shortcut Trick
Directly apply r^2 = Volume ÷ (π × h).
$r^2 = 8470 \div ((22/7) \times 2.2)$
$r^2 = (8470 \times 7) \div (22 \times 2.2) = (8470 \times 7) \div 48.4 = 1225$.
$r = \sqrt{1225} = 35$ cm.
Therefore The correct answer is 35 cm.
Alternate Method

Given:

Volume (V) = 8470 cm^3

Height (h) = 2.2 cm

$\pi = 22/7$

Formula Used:

Volume of Cylinder = $\pi r^2 h$

Calculations:

=> $8470 = (22/7) \times r^2 \times 2.2$

=> $8470 = (22 \times 2.2 / 7) \times r^2$

=> $8470 = (48.4 / 7) \times r^2$

=> $r^2 = (8470 \times 7) \div 48.4$

=> $r^2 = 59290 \div 48.4$

=> $r^2 = 1225$

=> $r = \sqrt{1225}$

=> r = 35 cm

Therefore The correct answer is 35 cm.

Additional Information

Curved Surface Area (CSA) of Cylinder

The lateral area excluding the top and bottom bases: CSA = $2\pi rh$.

Total Surface Area (TSA) of Cylinder

The sum of the CSA and the area of the two circular bases: TSA = $2\pi r(h + r)$.

Volume of Hollow Cylinder

The volume of the material between two concentric cylinders: $V = \pi(R^2 - r^2)h$.

Q23. Answer: (a) Pulicat

The Correct answer is Pulicat.

Key Points

• Pulicat was the site where the Dutch East India Company established a factory in 1610.

• Pulicat later became the headquarters of the Dutch directorate for the Coromandel region.

• The Coromandel region is located along the southeastern coast of India, known for its strategic importance in trade during the colonial era.

• The Dutch East India Company had a significant presence in India, operating through trading posts and factories, particularly in coastal areas.

• Pulicat was a notable port for the Dutch, facilitating trade in spices, textiles, and other commodities.

• The Dutch also constructed a fort in Pulicat, known as Fort Geldria, to protect their trading interests.

• Pulicat served as a major trading center and played a key role in establishing Dutch influence in the region during the 17th century.

Additional Information

• Surat

• Surat, located in Gujarat, was a significant trading port during the Mughal era.

• The Dutch, along with the Portuguese, British, and French, operated factories in Surat, but it was not the headquarters for the Coromandel region.

• Bombay

• Bombay, now known as Mumbai, became an important trading hub under British rule.

• It was not associated with the Dutch directorate for the Coromandel region.

• Cochin

• Cochin, located in Kerala, was a major port for the Portuguese and later the Dutch.

• While the Dutch had a presence here, it did not serve as the headquarters for their Coromandel operations.

Q24. Answer: (c) mv oldname.txt newname.txt

The correct answer is mv oldname.txt newname.txt.

Key Points

• The mv command in Linux is used for both moving and renaming files or directories.

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• When you use mv with the syntax mv oldname.txt newname.txt, it effectively renames the file named oldname.txt to newname.txt.

• This operation does not create a new file; instead, it modifies the metadata of the existing file, changing its name.

• The mv command is part of the standard set of Linux utilities and is available on almost all Linux distributions.

• Renaming with mv is a lightweight operation because it simply updates the file name in the filesystem without altering the file's contents.

• The mv command can also be used to move files between directories. For example: mv file.txt /path/to/destination/.

• To rename a file, you must have the write permissions for the directory containing the file.

• The mv command is versatile and widely used for file and directory management in Linux environments.

Additional Information

• touch oldname.txt newname.txt

• The touch command is used to create empty files or update the timestamps of existing files.

• It does not rename files or move them. Using touch oldname.txt newname.txt will create two separate empty files named oldname.txt and newname.txt, but it will not rename an existing file.

• cp oldname.txt newname.txt

• The cp command is used to copy files. It creates a duplicate file named newname.txt with the same content as oldname.txt.

• It does not rename the original file; instead, it creates a new file.

• Create oldname.txt newname.txt

• This is not a valid Linux command. Linux does not have a Create command for managing files directly.

• File creation is typically done using commands like touch or text editors like nano, vim, or cat.

Q25. Answer: (c) 42

Shortcut Trick

Let the longer side be L. Then the shorter side is L − 21.

Area = 7 × Perimeter => L × (L − 21) = 7 × 2 × [L + (L − 21)]

L2 − 21L = 14(2L − 21) => L2 − 21L = 28L − 294

L2 − 49L + 294 = 0. Solving this: (L − 42)(L − 7) = 0.

Since L > 21, the only possible value for the longer side is 42 cm.

Therefore The correct answer is 42 cm.

Alternate Method

Given:

=> Let Longer side = x cm

=> Shorter side = (x − 21) cm

Formula Used:

=> Area of Rectangle = Length × Breadth

=> Perimeter of Rectangle = 2 × (Length + Breadth)

Calculations:

=> Area = 7 × Perimeter

=> x(x − 21) = 7 × 2[x + (x − 21)]

=> x2 − 21x = 14(2x − 21)

=> x2 − 21x = 28x − 294

=> x2 − 49x + 294 = 0

=> x2 − 42x − 7x + 294 = 0

=> x(x − 42) − 7(x − 42) = 0

=> (x − 42)(x − 7) = 0

=> x = 42 or x = 7

=> Since the side must be greater than 21 (as x − 21 must be positive), x = 42 cm.

Therefore The correct answer is 42 cm.

Additional Information

Properties of a Rectangle

A rectangle is a quadrilateral with four right angles. Opposite sides are equal and parallel. Diagonals are equal and bisect each other.

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Diagonal Formula

The length of the diagonal (d) of a rectangle is given by d = √(L2 + B2).

Quadratic Root Selection

In geometry word problems, always check if the calculated side length makes all other dimensions (like L − 21) positive real numbers.

Q26. Answer: (c) 7 km towards the West

Given:

Mr. D starts from Point P and drives 11 km towards the South.

He then takes aleft turn, drives 6 km, turns right and drives 12 km.

He then takes a left turn anddrives 1 km. He takes a final left turn derives 23 km and stops at Point Q.

Thus, D has to drive 7km west to reach point P.

Hence, the correct answer is "Option 3".

Q27. Answer: (d) 58 years

Shortcut Trick

Total frequency N = 148, so N/2 = 74.

Cumulative frequencies: 12, 28, 58, 78, 95, 133, 148.

The Median Class is 50−60 (since 78 ≥ 74).

Median = 50 + [(74 − 58) ÷ 20] × 10 = 50 + 8 = 58.

Therefore The correct answer is 58 years.

Alternate Method

Given: Frequency distribution of patients by age.

Formula Used: Median = L + [((N/2) − cf_(prev)) ÷ f] × h

Calculations:

=> Total patients (N) = 12 + 16 + 30 + 20 + 17 + 38 + 15 = 148

=> N/2 = 148 ÷ 2 = 74

=> Cumulative Frequencies (cf):

20−30: 12 | 30−40: 28 | 40−50: 58 | 50−60: 78 | 60−70: 95 | 70−80: 133 | 80−90: 148

=> Median Class = 50−60 (since cf 78 is just greater than 74)

=> L (Lower limit) = 50,

Q28. Answer: (c) 39

Shortcut Trick

Arrange the data in ascending order: 13, 18, 25, 27, 31, 39, 56, 80, 87, 92, 98.

Total number of observations (n) = 11 (which is Odd).

Median = Middle term = ((11 + 1) / 2)^(th) term = 6^(th) term.

The 6^(th) term in the sorted list is 39.

Therefore The correct answer is 39.

Alternate Method

Given: Observations = 87, 56, 27, 31, 13, 39, 18, 80, 98, 92, 25.

Formula Used: Median = ((n + 1) / 2)^(th) term (when n is odd).

=> Arrange observations in ascending order: 13, 18, 25, 27, 31, 39, 56, 80, 87, 92, 98.

=> Count of observations (n) = 11.

=> Median = ((11 + 1) / 2)^(th) term.

=> Median = 6^(th) term.

=> 6^(th) term = 39.

Therefore The correct answer is 39.

Additional Information

Median for Even n

If the number of observations (n) is even, the median is the average of the (n/2)^(th) and (n/2 + 1)^(th) terms.

Mean (Average)

Mean = (Sum of all observations) ÷ (Total number of observations).

Mode

The mode is the value that appears most frequently in a data set. A set can have one mode, more than one mode, or no mode.

Q29. Answer: (a) 2

Given series:

(Left) & # © @ 7 2 5 1 4 © 4 2 £ & 9 1 % # 4 4 & 1 (Right)

Condition to be checked:

Number → Symbol → Number

& # © @ 7 2 5 1 4 © 4 2 £ & 9 1 % # 4 4 & 1

There is one such symbol in the above arrangement (4 © 4, 4 & 1).

Hence, the correct answer is "Option 1".

Q30. Answer: (d) 20 km to the north

Given:

Mr. STU starts from Point A and drives 33 km towards the east.

He then takes a left turn,drives 21 km, turns left and drives 41 km. He then takes a left turn and drives 41 km.

He takes a final left turn, drives 8 km and stops at Point P.

Thus, STU has to drive 20km north to reach point A.

Hence, the correct answer is "Option 4".

Q31. Answer: (c) 40 hours

Shortcut Trick

Time to empty = (Filling time × Emptying time) ÷ (Emptying time − Filling time)

Required time = (10 × 8) ÷ (10 − 8)

Required time = 80 ÷ 2 = 40 hours.

Therefore The correct answer is 40 hr.

Alternate Method

Given:

Filling pipe (A) = 10 hours

Emptying pipe (B) = 8 hours

Formula Used:

Total Work = LCM of individual times

Efficiency = Total Work ÷ Time

Pipe	Time (hr)	Total Capacity (LCM)	Efficiency (units/hr)
A (Filling)	10	40 units	+4
B (Emptying)	8	−5	

=> Net efficiency of (A + B) = +4 − 5 = −1 unit/hr

=> Negative sign indicates the cistern is being emptied.

=> Time to empty full cistern = Total Capacity ÷ Net Efficiency

=> Time = 40 ÷ 1 = 40 hours.

Therefore The correct answer is 40 hr.

Additional Information

Inlet and Outlet Pipes

An Inlet pipe fills the tank (positive efficiency), while an Outlet pipe empties it (negative efficiency).

Net Work Done

If efficiency of the outlet pipe is greater than the inlet pipe, a full tank will always be emptied.

Total Work Assumption

Total capacity is usually taken as the LCM of time taken by individual pipes for easier calculations.

Q32. Answer: (b) 2

Shortcut Trick

Required value = √[(Sum of squares + 2 × Product) ÷ (Sum of squares − 2 × Product)]

Ratio = √[(90 + 2 × 27) ÷ (90 − 2 × 27)]

Ratio = √[144 ÷ 36] = 12 ÷ 6 = 2

Therefore The correct answer is 2.

Alternate Method

Given:

=> $a^2 + b^2 = 90$

=> $ab = 27$

Formula Used:

=> $(a + b)^2 = a^2 + b^2 + 2ab$

=> $(a − b)^2 = a^2 + b^2 − 2ab$

Calculations:

=> $(a + b)^2 = 90 + 2(27) = 144$

=> $a + b = \sqrt{144} = 12$

=> $(a − b)^2 = 90 − 2(27) = 36$

=> $a − b = \sqrt{36} = 6$

=> Required fraction = (a + b) ÷ (a − b) = 12 ÷ 6 = 2

Therefore The correct answer is 2.

Additional Information

Algebraic Identity for 4ab

The relationship between the square of the sum and the square of the difference is given by $(a + b)^2 − (a − b)^2 = 4ab$.

Sum of Squares

The sum of squares $a^2 + b^2$ can be expressed as $((a + b)^2 + (a − b)^2) ÷ 2$.

Difference of Squares

The product of the sum and difference of two numbers results in the difference of their squares: $(a + b)(a − b) = a^2 − b^2$.

Q33. Answer: (a) 47.02%

Shortcut Trick

Net discount for 29% and 18% = 29 + 18 − (29 × 18) ÷ 100 = 47 − 5.22 = 41.78%.

Now, combine 41.78% and 9% = 41.78 + 9 − (41.78 × 9) ÷ 100.

= 50.78 − 3.7602 = 47.0198%.

Rounding to two decimal places, we get 47.02%.

Therefore The correct answer is 47.02%.

Alternate Method

Given → Three successive discounts d1 = 29%, d2 = 18%, and d3 = 9%.

Formulas: Net Discount = 100 − [100 × (100−d1)/100 × (100−d2)/100 × (100−d3)/100].

=> Final Price = 100 × (71/100) × (82/100) × (91/100)

=> Final Price = 100 × 0.71 × 0.82 × 0.91

=> Final Price = 52.9802

=> Single Equivalent Discount = 100 − 52.9802 = 47.0198%

=> Equivalent Discount ≈ 47.02%

Therefore The correct answer is 47.02%.

Additional Information

Successive Discounts

When a series of discounts are applied one after another on the reducing balance, they are called successive discounts. The order in which successive discounts are applied does not change the final result.

Single Equivalent Discount Formula

For two discounts a% and b%, the equivalent discount is (a + b − ab/100)%. For three, apply the formula to the first two, then to the result and the third.

Q34. Answer: (c) 14%

The Correct answer is 14%.

Key Points

• The Global Risks Perception Survey (GRPS) is conducted annually as part of the World Economic Forum's Global Risks Report.

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• It gathers insights from a diverse group of stakeholders, including business leaders, policymakers, academics, and risk experts.
• In the 2025 survey, 14% of respondents identified 'risk associated with extreme weather events' as a key concern.
• Extreme weather events are becoming more frequent due to the impact of climate change.
• These events include floods, hurricanes, heatwaves, and droughts, which have significant social, economic, and environmental consequences.
• The survey highlights the growing awareness of climate-related risks and emphasizes the need for global collaboration in addressing these challenges.
• The percentage (0.14 or 14%) reflects the proportion of respondents who prioritize this risk in their assessment for the upcoming year.

Additional Information

• Global Risks Perception Survey (GRPS)
• The GRPS is an integral part of the World Economic Forum's annual risk assessment initiative.
• It aims to identify and rank the major global risks that could impact societies, economies, and industries.
• The survey results influence the development of strategies to mitigate these risks at the global and regional levels.
• Extreme Weather Events
• Examples of extreme weather include hurricanes, typhoons, heatwaves, floods, and droughts.
• These events are often linked to climate change and can lead to severe disruptions in livelihoods, infrastructure, and ecosystems.
• Global efforts such as the Paris Agreement aim to combat the underlying causes of these events.

Q35. Answer: (b) -1,17/5

Shortcut Trick

For the equation $5x^2 - 12x - 17 = 0$, find two numbers that multiply to $(5 \times -17) = -85$ and add to -12.

The numbers are -17 and $+5$.

The roots are obtained by changing the signs of these numbers and dividing by the coefficient of x^2 ($a = 5$).

Roots = $-(-17)/5$ and $-(5)/5$ => $17/5$ and -1.

Therefore The correct answer is -1, 17/5.

Alternate Method

Given Equation: $5x^2 - 12x - 17 = 0$

Method: Factorization by splitting the middle term

=> $5x^2 - 17x + 5x - 17 = 0$

=> $x(5x - 17) + 1(5x - 17) = 0$

=> $(5x - 17)(x + 1) = 0$

Now, set each factor equal to zero:

=> $5x - 17 = 0$ => $5x = 17$ => $x = 17/5$

=> $x + 1 = 0$ => $x = -1$

The roots of the equation are -1 and $17/5$.

Therefore The correct answer is -1, 17/5.

Additional Information

Discriminant and Nature of Roots

The discriminant D is given by $b^2 - 4ac$. Since $D = (-12)^2 - 4(5)(-17) = 144 + 340 = 484 > 0$, the roots are real and distinct.

Sum and Product of Roots

For $ax^2 + bx + c = 0$, sum of roots = $-b/a$ and product of roots = c/a. Here, sum = 12/5 and product = $-17/5$.

Quadratic Formula

Roots can also be found using $x = [-b \pm \sqrt{(b^2 - 4ac)}] / 2a$.

Q36. Answer: (c) Jakarta, Indonesia

The Correct answer is Jakarta, Indonesia.

Key Points

• The 67th Governing Body Meeting of the Asian Productivity Organization (APO) was held in Jakarta, Indonesia in May 2025.
• The Asian Productivity Organization (APO) is an intergovernmental organization committed to enhancing the productivity of its member countries.
• Indonesia, the host country, is one of the founding members of the APO, which was established in 1961.

• Jakarta, the capital of Indonesia, is a major hub for international conferences and events, reflecting its role as a prominent economic and political center in the Southeast Asian region.

• The APO Governing Body Meeting is an annual event where delegates from all member countries gather to discuss and plan strategies for productivity enhancement, innovation, and sustainable development.

• Indonesia has been actively involved in APO programs, focusing on productivity improvement in sectors like agriculture, manufacturing, and services.

• The event in Jakarta underscored Indonesia's commitment to fostering regional cooperation and addressing productivity challenges in the Asia-Pacific region.

Additional Information

• Bangkok, Thailand

• Bangkok is the capital and largest city of Thailand.

• It is known for its vibrant street life, cultural landmarks, and bustling markets.

• Thailand is also an APO member and has hosted several APO events in the past.

• Tokyo, Japan

• Tokyo is the capital of Japan and serves as the headquarters of the Asian Productivity Organization (APO).

• Japan is a key member of the APO and often plays a leading role in its initiatives and programs.

• New Delhi, India

• New Delhi is the capital of India, another founding member of the APO.

• India has been an active participant in APO initiatives, particularly in areas like agriculture and industrial productivity.

Q37. Answer: (b) L

Given:

Seven people, A, B, L, M, N, S, and T are sitting in a row, facing north.

Only two people sit to the right of T. Only two people sit between T and N.

Only two people sit between M and A. A sits to the immediate left of T.

B sits to the immediate right of S.

Thus, L sits at third position from the left end of the line.

Hence, the correct answer is "Option 2".

Q38. Answer: (b) 44.13%

Shortcut Trick

Assume Cost Price (CP) = 100. Then Selling Price (SP) = 179.

When CP and SP are interchanged, New CP = 179 and New SP = 100.

Loss = 179 − 100 = 79.

Loss% = (79 ÷ 179) × 100.

Calculation: 7900 ÷ 179 ≈ 44.134%.

Therefore The correct answer is 44.13%.

Alternate Method

Given: Profit = 79%, New CP = Old SP, New SP = Old CP.

Formulas: SP = CP × (100 + P%) ÷ 100 | Loss% = (Loss ÷ CP) × 100

=> Let Initial Cost Price (CP1) = 100 units.

=> Initial Profit = 79%, so Initial Selling Price (SP1) = 179 units.

=> After interchanging, New Cost Price (CP2) = 179 units and New Selling Price (SP2) = 100 units.

=> New Loss = CP2 − SP2 = 179 − 100 = 79 units.

=> Loss Percentage = (Loss ÷ CP2) × 100 = (79 ÷ 179) × 100.

=> Loss% = 44.13407...% ≈ 44.13%.

Therefore The correct answer is 44.13%.

Additional Information

Profit and Loss Percentage

Profit or Loss is always calculated on the Cost Price unless specified otherwise. Formula: Profit% = (P/CP)×100 and Loss% = (L/CP)×100.

Interchanging CP and SP

If a transaction results in a profit, interchanging CP and SP will always result in a loss. The absolute value of the profit/loss

remains the same, but the percentage changes because the base (CP) changes.

Q39. Answer: (c) Three

Given:

2 is added to each even digit and 1 is subtracted from each odd digit in the number 74135296.

Given	7	4	1	3	5	2	9	6
Operation	-1	+2	-1	-1	-1	+2	-1	+2
New number	6	6	0	2	4	4	8	8

The new number formed is 66024488.

The digits 6, 4, and 8 appear more than once.

Thus, three digits appear more than once.

Hence, the correct answer is "Option 3".

Q40. Answer: (a) Geetika Lidder

The Correct answer is Geetika Lidder.

Key Points

• Geetika Lidder is the author of the book titled 'I am a Soldier's Wife'.

• The book is a tribute to the life of soldiers and their families, focusing on the challenges faced by a soldier’s spouse.

• Geetika Lidder is known for her emotional and inspirational writing, bringing to light the sacrifices made by military families.

• The book is an example of literary works that highlight the human side of military life, emphasizing resilience and courage.

• 'I am a Soldier's Wife' provides insights into the emotional aspects and the unspoken realities of being married to a soldier.

• The book has gained recognition for its poignant and heartfelt storytelling, making it relatable to readers who value stories of dedication and perseverance.

Additional Information

• Soumitra Chatterjee

• Soumitra Chatterjee was a renowned actor from India, primarily known for his work in Bengali cinema.

• He collaborated extensively with Satyajit Ray, starring in iconic films like 'The World of Apu'.

• Soumitra Chatterjee was awarded the Dadasaheb Phalke Award, India's highest award in cinema, for his contributions to Indian cinema.

• Dr. Aishwarya Pandit

• Dr. Aishwarya Pandit is a historian and academic known for her work in the field of Indian history and culture.

• She has contributed to research and publications on Indian socio-political history, but is not associated with the book 'I am a Soldier's Wife.'

• Namita Gokhale

• Namita Gokhale is an Indian writer and co-founder of the Jaipur Literature Festival.

• She is known for her novels like 'Paro: Dreams of Passion' and 'The Himalayan Love Story.'

• Her works often explore themes of contemporary Indian society and mythology.

Q41. Answer: (a) Wife's father's sister's son

A is				
Symbol	•	–	x	÷
Meaning	Son	Sister	Wife	Father
of B				

Given Expression: E + F - G ÷ H x K

E + F: E is the son of F.

F - G: F is the sister of G.

G ÷ H: G is the father of H.

H x K: H is the wife of K.

According to the given information Family Tree Representation:

Thus, E is the Wife's father's sister's son of K.

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Hence, the correct answer is "Option 1"

Q42. Answer: (b) Republic of the Congo

The Correct answer is Republic of the Congo.

Key Points

• The Republic of the Congo had its FIFA suspension lifted in May 2025 after resolving issues related to third-party interference in the governance of its football federation.

• FIFA suspensions are typically imposed when there is a violation of FIFA statutes, particularly concerning political or third-party interference.

• The Republic of the Congo's football federation worked closely with FIFA to address these issues and implement reforms to ensure compliance with FIFA's rules.

• The lifting of the suspension allowed the country to resume participation in international football events, including qualification matches for FIFA tournaments.

• This decision reflects the importance of autonomy and proper governance in sports organizations, as emphasized by FIFA.

• The resolution of this issue is expected to foster better development opportunities for football in the Republic of the Congo.

Additional Information

• Democratic Republic of the Congo

• The Democratic Republic of the Congo (DRC) is a separate country in Central Africa, distinct from the Republic of the Congo.

• It has its own football federation and has had a relatively stronger presence in African football, including winning the Africa Cup of Nations twice.

• The DRC was not involved in any FIFA suspension during the specified time period.

• Cameroon

• Cameroon is known for its successful football history, including multiple Africa Cup of Nations titles and appearances in the FIFA World Cup.

• While governance challenges have arisen in the past, Cameroon was not under FIFA suspension in May 2025.

• Nigeria

• Nigeria is one of Africa's football powerhouses, with notable achievements such as winning the Africa Cup of Nations and strong performances in the FIFA World Cup.

• Although it has faced governance issues in the past, Nigeria was not suspended by FIFA in May 2025.

Q43. Answer: (d) EGMQ

The logic followed here is:

YAGK : PRXB

OQWA : FHNR

Applying the logic to NPVZ:

Thus, NPVZ is related to EGMQ.

Hence, the correct answer is "Option 4".

Q44. Answer: (c) RNA has multiple roles including catalytic functions.

The Correct answer is RNA has multiple roles including catalytic functions.

Key Points

• RNA is a versatile molecule that performs various functions essential for life.

• In addition to being a genetic material in certain organisms (like viruses), RNA also plays a major role in protein synthesis as messenger RNA (mRNA), transfer RNA (tRNA), and ribosomal RNA (rRNA).

• Certain types of RNA, such as ribozymes, exhibit catalytic functions. Ribozymes catalyze biochemical reactions, such as cleaving RNA molecules or forming peptide bonds during protein synthesis.

• The discovery of catalytic RNA challenged the traditional belief that only proteins could act as enzymes.

• RNA is involved in processes such as gene regulation, splicing, and editing, highlighting its multifunctional nature.

• The ability of RNA to fold into complex three-dimensional structures is crucial for its catalytic and regulatory roles.

• Examples of RNA molecules with catalytic functions include self-splicing introns and the ribosome, where rRNA catalyzes peptide bond formation.

Additional Information

• DNA is not present in viruses

• Some viruses, such as retroviruses (e.g., HIV), use RNA as their genetic material instead of DNA.

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• However, many viruses, including adenoviruses and herpesviruses, contain DNA as their genetic material. Hence, the statement is incorrect.

• DNA acts only as a messenger molecule

• DNA is primarily the repository of genetic information in most organisms. It does not function as a messenger molecule; this role is performed by RNA (mRNA).

• RNA acts solely as genetic material in all living organisms

• In most living organisms, DNA serves as the primary genetic material, while RNA plays supporting roles. Only certain viruses use RNA as their genetic material.

Q45. Answer: (a) Uparika

The Correct answer is Uparika.

Key Points

• During the reign of the Gupta Empire, judicial and administrative systems were highly organized and decentralized.

• The term Uparika referred to provincial governors who held authority in the provinces.

• Uparikas were responsible for overseeing judicial matters and ensuring the enforcement of laws within their respective provinces.

• They functioned as the representative of the central government in the provinces and played a key role in governance.

• The Gupta administration was known for its efficiency and division of responsibilities, which contributed to the prosperity and stability of the empire.

• The judicial system under the Guptas was influenced by Hindu legal texts like the Manusmriti and was deeply rooted in Dharma (moral and religious law).

• Uparikas ensured that disputes were resolved fairly and that the legal and moral order was maintained across the provinces.

Additional Information

• King

• The King was the supreme authority in the Gupta Empire, responsible for making laws and overseeing the overall administration.

• While the King held the ultimate judicial power, day-to-day judicial matters were delegated to officials like the Uparikas in the provinces.

• Gramika

• Gramika refers to the headman of a village.

• They were responsible for local administration, resolving minor disputes, and maintaining order at the village level.

• They did not handle judicial matters at the provincial level.

• Ayuktaka

• The term Ayuktaka referred to officers responsible for revenue collection and administrative duties.

• They primarily focused on economic and administrative activities rather than judicial matters.

Q46. Answer: (c) 63,000

Shortcut Trick

For 10-monthly compounding, rate per period = 12% × (10/12) = 10%.

Total periods for 2.5 years (30 months) = 30 ÷ 10 = 3 periods.

Using Ratio Method: 10% = 1/10 => Amount/Principal = $(11/10)^3 = 1331/1000$.

1331 units = Rs. 83,853 => 1 unit = Rs. 83,853 ÷ 1331 = Rs. 63.

Principal (x) = 1000 units = 1000 × 63 = Rs. 63,000.

Therefore The correct answer is Rs. 63,000.

Alternate Method

Given:

Amount (A) = Rs. 83,853 | Annual Rate (R) = 12% | Time (T) = 2.5 years = 30 months.

Compounding = 10-monthly.

Formula Used:

$A = P(1 + r/100)^n$

Calculations:

=> Effective rate (r) = 12% × (10/12) = 10% per period

=> Number of periods (n) = 30 ÷ 10 = 3

=> $83,853 = x(1 + 10/100)^3$

=> 83,853 = $x(1.1)^3$

=> 83,853 = x × 1.331

=> x = 83,853 ÷ 1.331

=> x = 83,853,000 ÷ 1331

=> x = 63,000

Therefore The correct answer is Rs. 63,000.

Additional Information

Effective Rate for Compounding

When interest is compounded k-monthly, the rate used is (R ÷ 12) × k and the number of periods is (Total months ÷ k).

Compound Interest Formula

Amount $A = P(1 + r/100)^n$, where P is principal, r is rate per period, and n is the number of periods.

Successive Percentage Method

For 3 periods of 10% each, the effective percentage increase is 10 + 10 + (10×10)/100 = 21%, then 21 + 10 + (21×10)/100 = 33.1%.

Q47. Answer: (b) LOQ

The logic followed here is:

Thus, the missing letter in the series is LOQ.

Hence, the correct answer is "Option 2".

Q48. Answer: (d) It opens the file in a read-only mode, disabling most editing features

The Correct answer is It opens the file in a read-only mode, disabling most editing features.

Key Points

• Protected View is a security feature in Microsoft PowerPoint and other Office applications.

• When a file is downloaded or received from an external source, it opens in Protected View to safeguard the system from potential risks.

• In this mode, the file is opened in a read-only format, preventing accidental modifications and limiting editing capabilities.

• This feature is particularly useful for files from unknown or untrusted sources, as it prevents the execution of malicious macros or scripts.

• Users can enable editing manually if they trust the source, by clicking the "Enable Editing" button in the notification bar.

• The goal of Protected View is to enhance security by reducing the risk of malware or viruses affecting the system through potentially unsafe files.

• This feature is available in Microsoft Office 2010 and later versions.

Additional Information

• Macros are enabled automatically

• Macros are not enabled in Protected View. Instead, this mode blocks the execution of macros to safeguard the system from potentially harmful code.

• Enabling macros must be done manually by the user if they trust the file source.

• The file is corrupted

• A file being in Protected View does not necessarily mean it is corrupted.

• Corrupted files might not open at all or could display error messages, while Protected View is a proactive security measure.

• The presentation is encrypted and cannot be viewed

• Encrypted files require a password or decryption key to be accessed, which is different from the functionality of Protected View.

• In Protected View, the file is accessible but with limited functionality.

Q49. Answer: (d) 40

Shortcut Trick

The sum of eight numbers = Average × Count = 80 × 8 = 640.

The least number is 1/16 of the total sum.

Value = 640 ÷ 16 = 40.

Therefore The correct answer is 40.

Alternate Method

Given:

Total count of numbers = 8

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Average of numbers = 80

Condition: Least number = 1/16 × Sum

Formula:

Total Sum = Average × Number of observations

Calculations:

=> Total Sum of 8 numbers = 80 × 8 = 640

=> Least number = (1/16) × 640

=> Least number = 640 ÷ 16

=> Least number = 40

Therefore The correct answer is 40.

Additional Information

Concept of Average

The average is the central value of a set of data, calculated by Sum ÷ Count.

Summation Property

If the average of 'n' numbers is 'x', then their total sum is always n × x.

Fractional Parts

To find a specific fractional part of a total, multiply the total by the numerator and divide by the denominator.

Q50. Answer: (c) (25, 525, 21)

The logic followed here is:

Logic: Second Number = First Number × Third Number.

For, (23, 253, 11)

=> 23 × 11 = 253.

For, (46, 1104, 24)

=> 46 × 24 = 1104.

Option 1) (1, 12, 9)

=> 1 × 9 = 9. (Given Second number is 12, 12 ≠ 9)

Here, logic not followed.

Option 2) (4, 11, 2)

=> 4 × 2 = 8. (Given Second number is 11, 11 ≠ 8)

Here, logic not followed.

Option 3) (25, 525, 21)

=> 25 × 21 = 525.

Here, logic followed.

Option 4) (25, 253, 10)

=> 25 × 10 = 250. (Given Second number is 253, 253 ≠ 250)

Here, logic not followed.

Hence, the correct answer is "Option 3".

Q51. Answer: (b) Article 49

The Correct answer is Article 49.

Key Points

• Article 49 of the Indian Constitution falls under the Directive Principles of State Policy (DPSP).

• It directs the State to ensure the protection of every monument or place or object of artistic or historic interest that is of national importance.

• This Article emphasizes that such monuments or objects should not be spoliated, disfigured, destroyed, removed, disposed of, or exported.

• The objective of this Article is to preserve and maintain the rich cultural heritage of India for future generations.

• This provision is part of the Directive Principles of State Policy, meaning it is not enforceable by the courts but provides important guidelines for the government.

• It reinforces the government's responsibility to promote and protect India's artistic, cultural, and historical legacy.

• The protection of monuments is also supplemented by laws such as the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

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Additional Information

• Article 48

• It directs the State to organize agriculture and animal husbandry on modern and scientific lines.

• It also promotes the preservation and improvement of breeds and prohibits the slaughter of cows, calves, and other milch and draught cattle.

• Article 50

• This Article mandates the separation of the judiciary from the executive in the public services of the State.

• It aims to ensure judicial independence and the rule of law.

• Article 48A

• Added by the 42nd Amendment Act, 1976, it directs the State to protect and improve the environment and safeguard forests and wildlife.

• It highlights the importance of environmental conservation as part of the Directive Principles.

Q52. Answer: (d) maximum point

The Correct answer is maximum point.

Key Points

• The crest of a wave is the point where the disturbance reaches its maximum displacement in an oscillatory motion.

• It is the highest point the wave reaches above its mean position or equilibrium line.

• This concept is fundamental in understanding wave mechanics, including water waves, sound waves, and electromagnetic waves.

• The crest is followed by the trough, which is the lowest point or the point of maximum negative displacement.

• In mathematical terms, for a sinusoidal wave, the crest corresponds to the point where the amplitude of the wave is at its positive maximum value.

• The concept of the crest is essential in various fields, including physics, engineering, and oceanography, as it helps in analyzing wave behavior, energy, and motion.

• Understanding the crest is crucial in determining the wavelength (distance between two consecutive crests) and the frequency of the wave.

Additional Information

• Minimum point

• The minimum point in a wave corresponds to the trough, which is the lowest point in the wave cycle or the point of maximum negative displacement.

• Troughs are essential for calculating the amplitude and determining the wave's energy.

• Zero point

• The zero point refers to the mean position or equilibrium line of the wave, where there is no displacement.

• It is the point of zero disturbance in the wave's cycle.

• Constant point

• This term is not typically used in wave mechanics as waves are inherently oscillatory and do not remain constant.

• The motion of waves is characterized by continuous variations in displacement, making "constant point" an incorrect description.

Q53. Answer: (c) 4.0%

The Correct answer is 4.0%.

Key Points

• The Monetary Policy Statement is issued periodically by the Reserve Bank of India (RBI) to outline the economic and financial outlook for the country.

• The Consumer Price Index (CPI) measures the average change in the prices of goods and services consumed by households over time.

• For the financial year 2025-26, the CPI inflation rate has been projected at 4% based on current economic conditions and policy measures.

• The projection indicates the central bank’s focus on maintaining price stability while supporting economic growth.

• A 4% inflation rate is considered within the target range set by the RBI under its flexible inflation targeting framework (2%-6%).

• This projection helps policymakers, investors, and businesses to plan their activities by providing a benchmark for expected price levels.

• Maintaining inflation near the target ensures the purchasing power of the currency remains stable, thereby fostering sustainable economic development.

Additional Information

• Consumer Price Index (CPI) is an important economic indicator widely used for purposes such as:

• Measuring inflation: It reflects the rate at which the general level of prices is rising.

• Policy formulation: The RBI uses CPI data to design its monetary policies, including interest rate decisions.

• Wage adjustments: CPI is often used to adjust salaries and pensions to offset the impact of inflation.

• The Monetary Policy Committee (MPC), a statutory body within the RBI, is responsible for setting the inflation target and adjusting key policy rates like the repo rate to achieve it.

• Other projections or data points in the Monetary Policy Statement typically include:

• GDP growth rates,

• fiscal deficit trends,

• and global economic outlooks.

Q54. Answer: (b) 78

Shortcut Trick

Target Average = 80. Calculate Net Deviation of given marks from 80.

Deviations: (78−80) + (85−80) + (69−80) + (90−80) => −2 + 5 − 11 + 10 = +2.

To keep average at 80, Net Deviation must be 0. So, 5^(th) subject deviation must be −2.

5^(th) subject score = Target Average + Required Deviation => 80 + (−2) = 78.

Therefore The correct answer is 78 marks.

Alternate Method

Given: Marks in 4 subjects = 78, 85, 69, 90; Required Average for 5 subjects = 80.

Formula Used: Total Sum = Average × Number of Observations.

Calculations:

=> Total marks required for 5 subjects = 80 × 5 = 400.

=> Sum of marks in 4 subjects = 78 + 85 + 69 + 90.

=> Sum of 4 subjects = 322.

=> Marks required in 5^(th) subject = Total required marks − Current sum.

=> Marks in 5^(th) subject = 400 − 322 = 78.

Therefore The correct answer is 78 marks.

Additional Information

Arithmetic Mean

It is the sum of all observations divided by the total number of observations. Formula: Mean (μ) = Σx / n.

Net Deviation Rule

The algebraic sum of deviations of a set of observations from their arithmetic mean is always zero. This is a powerful tool for solving missing value problems in averages.

New Observation Entry

New Observation = (New Average × New Count) − (Old Average × Old Count).

Q55. Answer: (b) 19

Shortcut Trick

Combined efficiency of A + B = 1/2 work/day

Efficiency of A = 1/38 work/day

Efficiency of B = 1/2 − 1/38 = (19 − 1)/38 = 18/38 = 9/19 work/day

Time for B to do 9-times work = (Total work × 9) ÷ Efficiency of B = 9 ÷ (9/19) = 19 days

Therefore The correct answer is 19 days.

Alternate Method

Given:

Time taken by A + B = 2 days

Time taken by A alone = 38 days

Formula Used:

Total Work = LCM of time taken

Efficiency = Total Work ÷ Time Taken

Person	Days	Total Work	Efficiency
A + B	2	38	19
A	38	1	

Calculations:

=> Efficiency of B = Efficiency of (A + B) − Efficiency of A

=> Efficiency of B = 19 − 1 = 18

=> New work to be done = 9 × Total Work = 9 × 38

=> Time taken by B = (9 × 38) ÷ 18

=> Time taken by B = 342 ÷ 18 = 19 days

Therefore The correct answer is 19 days.

Additional Information

Work and Efficiency Relationship

Efficiency is inversely proportional to the time taken to complete a work. If a person completes work in 'n' days, their 1-day work is 1/n.

Combined Work Formula

If A takes 'x' days and B takes 'y' days, together they take (x × y) ÷ (x + y) days to complete the same work.

Q56. Answer: (a) 5

Given:

1 is added to each even digit and 2 is subtracted from each odd digit in the number 2756493.

Given	2	7	5	6	4	9	3
Operation	+1	-2	-2	+1	+1	-2	-2
New number	3	5	3	7	5	7	1

The new number formed is 3537571.

The second digit from the left in the new number is 5.

Hence, the correct answer is "Option 1".

Q57. Answer: (d) 24

Shortcut Trick

Total time = 50 minutes. Breakdown: 13 mins (x), 25 mins (2x), and remaining (50 − 13 − 25) = 12 mins (x).

Total Equivalent Time at speed x = 13 + (25 × 2) + 12 = 13 + 50 + 12 = 75 minutes.

Distance = Speed × Time => 30 km = x × (75/60) hours.

x = (30 × 60) ÷ 75 = 1800 ÷ 75 = 24 km/hr.

Therefore The correct answer is 24 km/hr.

Alternate Method

Given: Total Distance = 30 km, Total Time = 50 min.

Formula Used: Distance = Speed × Time

=> Third part time = 50 − (13 + 25) = 12 minutes.

=> Distance1 = x × (13/60) km

=> Distance2 = 2x × (25/60) km

=> Distance3 = x × (12/60) km

=> Total Distance = (13x/60) + (50x/60) + (12x/60) = 30

=> 75x/60 = 30

=> 5x/4 = 30

=> 5x = 120

=> x = 24 km/hr

Therefore The correct answer is 24 km/hr.

Additional Information

Average Speed Formula

Average Speed = Total Distance ÷ Total Time. In this case, 30 km ÷ (50/60) hours = 36 km/hr.

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Unit Conversion

To convert minutes to hours, divide by 60. To convert km/hr to m/s, multiply by 5/18.

Distance with Variable Speeds

Total Distance = (S1 × T1) + (S2 × T2) + ... + (S_n × T_n), ensuring all units are consistent.

Q58. Answer: (c) Kerala

The Correct answer is Kerala.

Key Points

• Vidarbha defeated Kerala in the final of the 2024-25 Ranji Trophy, marking a significant achievement in Indian domestic cricket.

• The Ranji Trophy is India's premier domestic cricket tournament, organized by the Board of Control for Cricket in India (BCCI).

• Kerala has emerged as a strong competitor in recent years, showcasing improvement in its cricketing infrastructure and player development.

• The victory for Vidarbha highlights their consistent performance in domestic cricket, as they have become a formidable team in the tournament.

• Vidarbha's success can be attributed to their balanced team composition, including experienced players and promising young talent.

• The 2024-25 Ranji Trophy final was held under challenging conditions, testing the resilience and skills of both teams.

• Vidarbha's triumph against Kerala adds to their legacy in domestic cricket and boosts their confidence for future tournaments.

Additional Information

• Tamil Nadu

• Tamil Nadu is a historically strong team in Indian domestic cricket, having won the Ranji Trophy multiple times.

• The state is known for its cricketing infrastructure and has produced renowned Indian cricketers like Ravichandran Ashwin and Dinesh Karthik.

• Bengal

• Bengal is another strong competitor in domestic cricket, known for its rich cricketing legacy.

• The team has won the Ranji Trophy multiple times and produced players like Sourav Ganguly, a former Indian captain.

• Mumbai

• Mumbai holds the record for winning the Ranji Trophy the most number of times.

• The team is considered a powerhouse in Indian domestic cricket and has produced legendary players like Sachin Tendulkar and Sunil Gavaskar.

Q59. Answer: (a) 216

Shortcut Trick

Prime Factorization of given numbers:

48 = 2^4 × 3^1

88 = 2^3 × 11^1

LCM = 4752 = 2^4 × 3^3 × 11^1

Since the LCM has 3^3, and neither 48 nor 88 contains 3^3, x must be a multiple of 3^3 (27). Only 216 is divisible by 27.

Therefore The correct answer is 216.

Alternate Method

Given: Numbers are 48, 88, and x. LCM = 4752.

Step 1: Find the prime factors of the given numbers.

=> 48 = 16 × 3 = 2^4 × 3^1

=> 88 = 8 × 11 = 2^3 × 11^1

Step 2: Find the prime factors of the LCM.

=> 4752 = 2 × 2376 = 2^2 × 1188 = 2^3 × 594 = 2^4 × 297

=> 297 = 27 × 11 = 3^3 × 11^1

=> LCM (48, 88, x) = 2^4 × 3^3 × 11^1

Step 3: Compare factors. LCM is the product of highest powers of all prime factors present in the numbers.

=> Power of 2 in LCM is 2^4 (comes from 48).

=> Power of 11 in LCM is 11^1 (comes from 88).

=> Power of 3 in LCM is 3^3. However, 48 has only 3^1 and 88 has 3^0.

=> Therefore, x must contain 3^3 = 27 as a factor.

Step 4: Check options for multiples of 27.

=> 216 = 27 × 8 (Satisfies the condition).

Therefore The correct answer is 216.

Additional Information

LCM Definition

Least Common Multiple is the product of the highest powers of all prime factors involved in the numbers.

HCF vs LCM Relation

For two numbers a and b: a × b = HCF(a, b) × LCM(a, b). This does not directly apply to three numbers.

Divisibility Rule of 27

A number is divisible by 27 if the sum of its digits in blocks of three from right to left is divisible by 27.

Q60. Answer: (a) Mohiniattam

The Correct answer is Mohiniattam.

Key Points

• Swati Tirunal was a celebrated patron of the arts and a ruler of the princely state of Travancore (modern-day Kerala).

• He was instrumental in the revival and promotion of Mohiniattam, a classical dance form of Kerala.

• Mohiniattam is characterized by its graceful and lyrical movements.

• This dance form derives its name from "Mohini," a mythological enchantress avatar of Lord Vishnu.

• It is traditionally performed by women and showcases themes of love and devotion.

• Swati Tirunal composed numerous music compositions, including padams and varnams, specifically for Mohiniattam performances.

• His works contributed to the enrichment and preservation of Kerala's cultural heritage.

• Swati Tirunal's patronage of Mohiniattam ensured its survival and development during a time when many traditional art forms were declining.

Additional Information

• Kathakali

• Kathakali is another classical dance-drama of Kerala, known for its elaborate costumes, heavy makeup, and expressive gestures.

• It primarily depicts stories from the Mahabharata and Ramayana.

• Unlike Mohiniattam, Kathakali is traditionally performed by male artists.

• Bharatanatyam

• Bharatanatyam is a classical dance form from Tamil Nadu.

• It is known for its intricate footwork, dramatic expressions, and spiritual themes.

• It is one of the oldest dance forms in India and is often performed as a form of devotional expression.

• Odissi

• Odissi is a classical dance form from Odisha.

• It is characterized by its fluid movements, sculpturesque poses, and themes derived from Hindu mythology.

• Odissi performances are often accompanied by Odissi music, which has its own distinct style.

Q61. Answer: (a) 5 years

The Correct answer is 5 years.

Key Points

• The tenure of elected members serving on the board of a co-operative society is generally prescribed under the respective State Co-operative Societies Acts or the Multi-State Co-operative Societies Act (for multi-state societies).

• As per the Indian Co-operative Societies Act, the elected members of the board typically serve for a term of 5 years.

• This ensures a balance between continuity of governance and the opportunity for members to bring in new leadership or policy direction.

• The 5-year term allows boards to implement long-term plans and strategies effectively for the betterment of the society and its members.

• The election process for board members is conducted in a democratic manner, ensuring representation and fairness for all members of the co-operative society.

• In certain cases, the tenure can vary depending on the specific state laws or bylaws of the co-operative society, but 5 years remains the standard term.

• The governance system in co-operative societies emphasizes transparency, accountability, and member participation, aligning

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with their democratic principles.

Additional Information

• 3 years

• The 3-year term is not standard for co-operative societies in India. However, some organizations or committees with shorter project timelines may adopt this tenure.

• In certain countries, the tenure for elected members in similar entities might be 3 years, but this is not typically applicable to Indian co-operative societies.

• 4 years

• A 4-year term is more commonly seen in corporate governance or public office elections in some countries, but it is not a standard tenure for co-operative society boards in India.

• 6 years

• A 6-year term is generally considered too long for elected positions in co-operative societies, as it might hinder the democratic principle of allowing members to elect new representatives periodically.

• It is uncommon for co-operative societies in India to have a tenure of 6 years for board members.

Q62. Answer: (b) 1372

The logic followed here is:

Thus, the missing term in the series is 1372.

Hence, the correct answer is "Option 2";

Q63. Answer: (d) HPD: DSG

The pattern followed here is:

JOL : FRO

Pair 2: MKH : INK

Applying the same logic to the options:

Option 4: HPD : DSG

This pair follows the same (-4, +3, +3) pattern.

Hence, the correct answer is "Option 4".

Q64. Answer: (b) Export of raw materials, import of manufactured goods

The Correct answer is Export of raw materials, import of manufactured goods.

Key Points

• During the British colonial period, India's trade structure was designed to serve the economic interests of Britain.

• India became a supplier of raw materials such as cotton, jute, tea, and spices to Britain.

• At the same time, India was made a market for the import of manufactured goods, including textiles and machinery, from Britain.

• This unequal trade structure led to the decline of India's indigenous industries, including the famous textile industry.

• British policies ensured that India remained a dependent economy incapable of self-sustained industrial growth.

• The economic exploitation drained India's wealth and contributed significantly to the poverty and backwardness observed at the time of Independence.

• The combination of and manufactured goods imports reinforced India's colonial subjugation and economic imbalance.

• This trade pattern is a classic example of colonial economic strategy focused on resource extraction and market monopolization.

Additional Information

• Export of capital, import of labour

• This option does not accurately describe India's trade structure under British colonial rule as India's economy was focused on the export of raw materials and the import of manufactured goods.

• There was no significant export of capital or organized import of labour in this context.

• Export of industrial goods, import of food

• India's industrial sector was stifled under British rule, making it impossible to export industrial goods.

• Instead, India relied on agricultural products and raw materials for export.

• Balanced two-way trade with Europe only

• India's trade under British rule was not balanced. It was highly exploitative and one-sided, favoring Britain.

• Trade relations were not limited to Europe; India also traded with other parts of the world as per British interests.

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Q65. Answer: (a) Baul

The Correct answer is Baul.

Key Points

• Baul represents a unique form of spiritual folk music that originated in Bengal.

• The Baul tradition is deeply rooted in Bengali culture and is known for its philosophical and mystical themes.

• Baul songs emphasize love, spirituality, and human connection over material possessions and worldly matters.

• Baul music is often performed using traditional instruments like the ektara, dotara, khamak, and duggi.

• The performers, known as Bauls, are often wandering minstrels who follow a unique lifestyle based on their philosophical beliefs.

• Baul music has been recognized as part of the Intangible Cultural Heritage of Humanity by UNESCO since 2008.

• The Baul tradition is influenced by Vaishnavism, Sufism, and Tantric practices.

• Famous Baul singers include Lalon Fakir, whose songs have had a lasting impact on Bengali music and literature.

Additional Information

• Bhakha

• The term Bhakha is not directly associated with Bengali folk music but generally refers to language or dialect in certain Indian contexts.

• It is not a recognized form of folk music or tradition in Bengal.

• Ovi

• Ovi is a form of traditional folk poetry or song from Maharashtra, not Bengal.

• Ovi is often sung by women while performing household chores or during rituals.

• Wanawan

• Wanawan refers to a form of folk singing in Kashmir and is performed during weddings and other celebrations.

• It has no connection to the spiritual folk music of Bengal.

Q66. Answer: (d) Nepal

The Correct answer is Nepal.

Key Points

• The Kalapani dispute is a territorial conflict between India and Nepal.

• It revolves around the location of the Kalapani region, a strategically important area situated in the northwestern region of Uttarakhand, India, close to the Nepal border.

• Kalapani is located near the tri-junction of India, Nepal, and China.

• The dispute arose due to differing interpretations of the origin of the Mahakali River, which serves as the boundary between the two countries as per the Sugauli Treaty of 1815.

• India claims Kalapani based on historical maps and records that show the region as part of its territory.

• Nepal, however, claims Kalapani as part of its territory, citing the river as the eastern boundary, with the region located to the east of the river.

• The disagreement escalated in 2019 when India published a new political map following the abrogation of Article 370, which showed Kalapani as part of Uttarakhand.

• The issue remains unresolved, and both nations continue to engage in diplomatic discussions to address the territorial dispute.

Additional Information

• China

• China is located to the north of both India and Nepal.

• Although China shares borders with both nations, it is not directly involved in the Kalapani territorial dispute.

• India and China have their own border disputes, including those concerning the Line of Actual Control (LAC) and regions like Aksai Chin and Arunachal Pradesh.

• Bangladesh

• Bangladesh shares its borders with India but does not have any territorial disputes over Kalapani.

• India and Bangladesh have resolved several border issues in the past, including the Land Boundary Agreement of 2015.

• Bhutan

• Bhutan is a landlocked country located to the northeast of India.

• India and Bhutan share strong diplomatic relations, and Bhutan is not involved in the Kalapani dispute.

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Q67. Answer: (a) 6

Given:

X varies inversely as Y and Y varies inversely as Z.

Initial values: X = 1/16 and Z = 1/32.

New value: Z = 3.

Formula Used:

X × Y = k1 (constant for X and Y).

Y × Z = k2 (constant for Y and Z).

Calculation:

From X × Y = k1 and Y × Z = k2:

Y = k1 / X, Z = k2 / Y.

=> Z = k2 / (k1 / X).

=> Z = X × k2 / k1.

From the initial values, substitute X = 1/16 and Z = 1/32:

k2 / k1 = Z / X = (1/32) / (1/16).

k2 / k1 = 1/32 × 16/1 = 1/2.

Now, when Z = 3:

=> Z = X × k2 / k1.

=> 3 = X × (1/2).

=> X = 3 × 2.

=> X = 6.

The value of X when Z = 3 is 6.

Q68. Answer: (b) More than three

Given series:

(Left) 5 @ 6 # 8 $ % 1 9 ^ 7 ? 2 3 ? 4 (Right)

Condition to be checked:

Number → Symbol → Number

5 @ 6 # 8 $ % 1 9 ^ 7 ? 2 3 ? 4

There are more than three such symbols in the above arrangement (5 @ 6, 6 # 8, 9 ^ 7, 7 ? 2, 3 ? 4).

Hence, the correct answer is "Option 2".

Q69. Answer: (a) DGD 125

The pattern followed here is.

Thus, the missing term in the series is DGD 125.

Hence, the correct answer is Option 1.

Q70. Answer: (b) Only Conclusion (1) is true

The least possible venn diagram is:

Conclusion

(1) No bottles are plates → True (As, All bottles are glasses, No glasses are plates. so, No bottles are plates holds true)

(II) No spoons are glasses → False (As, there is no direct relation between them)

Thus, Only Conclusion (1) is true.

Hence, the correct answer is "Option 2".

Q71. Answer: (a) (16.5, 8.5)

Shortcut Trick

Sum of x-coordinates = 3 × Centroid_x => x + 3 − 6 = 3 × 3.5 = 10.5 => x = 13.5.

Sum of y-coordinates = 3 × Centroid_y => 5 − 4 + y = 3 × 4.5 = 13.5 => y = 12.5.

Required point (x + 3, y − 4) = (13.5 + 3, 12.5 − 4) = (16.5, 8.5).

Therefore The correct answer is (16.5, 8.5).

Alternate Method

Given: Vertices of triangle are A(x, 5), B(3, −4), and C(−6, y). The centroid is G(3.5, 4.5).

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Formula Used: Centroid G(X, Y) of a triangle with vertices (x1, y1), (x2, y2), and (x3, y3) is given by:

X = (x1 + x2 + x3) / 3 and Y = (y1 + y2 + y3) / 3

Calculations:

=> 3.5 = (x + 3 + (−6)) / 3

=> 3.5 × 3 = x − 3

=> 10.5 = x − 3 => x = 13.5

=> 4.5 = (5 + (−4) + y) / 3

=> 4.5 × 3 = 1 + y

=> 13.5 = 1 + y => y = 12.5

=> Required point = (x + 3, y − 4)

=> Point = (13.5 + 3, 12.5 − 4)

=> Point = (16.5, 8.5)

Therefore The correct answer is (16.5, 8.5).

Additional Information

Centroid Properties

The centroid is the intersection of the three medians and always lies inside the triangle. It divides each median in a 2:1 ratio.

Area of Triangle (Coordinate Geometry)

Area = 0.5 × |x1(y2 − y3) + x2(y3 − y1) + x3(y1 − y2)|. If the area is zero, the points are collinear.

Section Formula

A point dividing a line segment joining (x1, y1) and (x2, y2) in ratio m:n is ((mx2 + nx1)/(m+n), (my2 + ny1)/(m+n)).

Q72. Answer: (a) The Centre and one or more states

The Correct answer is The Centre and one or more states.

Key Points

• The original jurisdiction of the Supreme Court of India is defined under Article 131 of the Indian Constitution.

• In its original jurisdiction, the Supreme Court can adjudicate disputes between the Government of India (Centre) and one or more states.

• This jurisdiction is exclusive to the Supreme Court, meaning no other court in India can handle such disputes.

• It also includes disputes between two or more states, or between the Centre and any state(s) on one side and other states on the other side.

• This ensures the maintenance of a federal balance and resolves any legal conflicts that may arise between different levels of government.

• However, it is important to note that this jurisdiction is limited to questions of law or questions of fact on which the existence of a legal right depends.

• Some examples of cases under this jurisdiction include disputes related to taxation, water disputes, or constitutional interpretation.

Additional Information

• Two private citizens from different states

• Disputes between private citizens are not within the original jurisdiction of the Supreme Court.

• Such matters are generally dealt with by civil courts or high courts in India.

• Two municipal corporations of different states

• Municipal corporations are governed by their respective state governments, and any disputes between them would not fall under the original jurisdiction of the Supreme Court.

• Such cases would typically be resolved within the jurisdiction of the respective state high courts.

• A state government and a private corporation

• Disputes involving private corporations are not covered under Article 131.

• Such matters are generally resolved through civil courts or other legal mechanisms, including tribunals.

Q73. Answer: (a) 2

Given:

Find: (60% of 40) − (2/5 of 55)

Formula used:

Percentage: (p% of q) = (p × q) ÷ 100

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Fraction: (m/n of q) = (m × q) ÷ n

Calculations:

=> 60% of 40 = (60 × 40) ÷ 100 = 2400 ÷ 100 = 24

=> (2/5) of 55 = (2 × 55) ÷ 5 = 110 ÷ 5 = 22

=> Difference = 24 − 22 = 2

Therefore 60% of 40 is greater by 2.

Q74. Answer: (b) Only 3

The Correct answer is Only 3.

Key Points

• Minimum Alternate Tax (MAT) is a provision in the Indian tax regime aimed at ensuring that companies with substantial profits and paying little or no tax under normal provisions also contribute to the tax structure.

• MAT is calculated on the basis of 15% of the book profit plus applicable surcharge and cess. However, the statement that it is levied at the lower of this rate or usual corporate rates is incorrect.

• MAT applies to both domestic and foreign companies (with specific exceptions), not just domestic companies. Hence, the second statement is incorrect.

• The third statement is correct as MAT serves as an anti-tax-avoidance tool by bringing companies under the tax net that would otherwise avoid taxes using exemptions, deductions, or incentives.

• MAT provisions are defined under Section 115JB of the Income Tax Act, 1961.

• Companies that are subject to MAT are required to pay the higher of the calculated MAT or the normal tax liability.

• MAT ensures a more equitable tax system by preventing companies from showing artificially reduced profits using accounting practices.

Additional Information

• Statement 1:

• The claim that MAT is calculated at 15% or at the usual corporate rates, whichever is lower, is factually incorrect. In practice, MAT is levied at a fixed rate of 15% of book profits (plus surcharge and cess, if applicable), and this is compared with the normal tax liability. The higher of the two is payable.

• Statement 2:

• MAT applies to both domestic and foreign companies, except for specific cases like companies in Special Economic Zones (SEZs) or those availing exemptions under Double Taxation Avoidance Agreements (DTAAs).

• Foreign companies are subject to MAT if they have a presence in India and are required to prepare their profit and loss accounts under the Companies Act.

• Statement 3:

• This is correct. MAT helps prevent tax avoidance by ensuring that companies with substantial book profits but reduced taxable income due to deductions and exemptions still pay a minimum amount of tax.

• It establishes a level playing field for companies by reducing the scope for aggressive tax planning.

Q75. Answer: (c) Lack of adequate terminal facilities

The Correct answer is Lack of adequate terminal facilities.

Key Points

• Inland waterways in India refer to the use of rivers, canals, backwaters, and lakes for the transportation of goods and passengers.

• The absence of adequate terminal facilities is a significant challenge in the development of inland waterways in India.

• Terminals are essential for loading, unloading, and storage of cargo as well as for the smooth functioning of water transportation.

• Lack of terminals creates bottlenecks in the system, affecting the efficiency and cost-effectiveness of waterway transportation.

• India has a vast network of rivers but many of them are not equipped with modern terminal infrastructure, leading to underutilization of this mode of transport.

• Government initiatives like the Jal Marg Vikas Project (JMVP) aim to address this challenge by improving infrastructure, including terminals, on National Waterways.

• Adequate terminal facilities are also necessary to ensure the integration of waterways with other modes of transportation like rail and road.

Additional Information

• Minimal environmental concerns

• Inland waterways are considered an environmentally friendly mode of transport as they produce lower emissions compared to road or rail transport.

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• However, environmental concerns such as impact on aquatic ecosystems, water quality, and riverbank erosion must still be addressed.
• High levels of private investment
• Private investment in inland waterways has been relatively low due to the high initial cost and long gestation period of projects.
• Government support is often required to attract private players through public-private partnerships (PPPs).
• Well-established infrastructure
• Contrary to the statement, the infrastructure for inland waterways in India is still in the developmental stage.
• Efforts like the development of National Waterways are ongoing to improve the infrastructure.

Q76. Answer: (d) = HOU, % = PWC

Given:
: MTZ :: KRX : %
Option 1) # = HOU, % = PWP
For # (HOU) to MTZ
For KRX to % (PWP)
Option 1 is incorrect.
Option 2) # = HYU, % = PWC
For # (HYU) to MTZ
For KRX to % (PWC)
Option 2 is incorrect.
Option 3) # = YOU, % = PWC
For # (YOU) to MTZ
For KRX to % (PWC)
Option 3 is incorrect.
Option 4) # = HOU, % = PWC
For # (HOU) to MTZ
For KRX to % (PWC)
Option 4 is correct.
Hence, the correct answer is "Option 4".

Q77. Answer: (d) Cabinet Minister

The Correct answer is Cabinet Minister.
Key Points
• The Union Council of Ministers in India consists of different levels of ministers, including the Prime Minister, Cabinet Ministers, Ministers of State, and Deputy Ministers.
• A Cabinet Minister holds the highest position in the council after the Prime Minister and is responsible for major ministries such as Finance, Defence, Home Affairs, External Affairs, etc.
• Cabinet Ministers are part of the core decision-making body in the government and attend cabinet meetings chaired by the Prime Minister.
• The Cabinet Ministers are responsible for framing policies, implementing laws, and overseeing the functioning of their respective ministries.
• The hierarchy within the Union Council of Ministers places the Cabinet Minister immediately below the Prime Minister, followed by Ministers of State and Deputy Ministers.
• This structure ensures efficient governance and delegation of responsibilities across various levels of the government.
• Cabinet Ministers are appointed by the President of India on the advice of the Prime Minister.
Additional Information
• Minister of State
• A Minister of State is a junior minister who assists the Cabinet Minister in handling their respective ministry.
• They may handle specific responsibilities within the ministry or act as independent ministers for less critical portfolios.
• While they attend meetings and contribute to policy discussions, they are not part of the core Cabinet meetings.
• Deputy Minister
• Deputy Ministers are at a lower rank compared to Ministers of State and mainly assist in administrative and operational tasks.
• They do not have independent portfolios and work under the guidance of senior ministers.

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• Parliamentary Secretary
• A Parliamentary Secretary is not considered a minister but acts as an aide to a senior minister or Cabinet Minister.
• They focus on legislative duties and help coordinate between the ministry and parliament.

Q78. Answer: (c) 1

Given series:
(Left) € & % & 5 6 3 1 © 1 4 6 @ £ @ $ 8 8 £ 8 % 1 (Right)
Condition to be checked:
Symbol → Number → Symbol
€ & % & 5 6 3 1 © 1 4 6 @ £ @ $ 8 8 £ 8 % 1
There is one such number in the above arrangement (£ 8 %).
Hence, the correct answer is "Option 3".

Q79. Answer: (c) 287

Shortcut Trick
If the value of $x + 1/x = k$, then the value of $x^2 + 1/x^2$ is always $k^2 - 2$.
Given that $k = 17$.
$\Rightarrow x^2 + 1/x^2 = 17^2 - 2$
$\Rightarrow 289 - 2 = 287$.
Therefore The correct answer is 287.
Alternate Method
Given: $x + 1/x = 17$
Formula Used: $(a + b)^2 = a^2 + b^2 + 2ab$
=> Squaring both sides of the equation $x + 1/x = 17$:
$\Rightarrow (x + 1/x)^2 = 17^2$
$\Rightarrow x^2 + (1/x)^2 + 2 \times x \times (1/x) = 289$
$\Rightarrow x^2 + 1/x^2 + 2 = 289$
$\Rightarrow x^2 + 1/x^2 = 289 - 2$
$\Rightarrow x^2 + 1/x^2 = 287$
Therefore The correct answer is 287.
Additional Information
Cube Identity
If $x + 1/x = k$, then the value of $x^3 + 1/x^3$ is given by the formula $k^3 - 3k$.
Negative Sign Identity
If $x - 1/x = k$, then the value of $x^2 + 1/x^2$ is calculated as $k^2 + 2$.
Fourth Power Identity
To find $x^4 + 1/x^4$ when $x + 1/x = k$, use the formula $(k^2 - 2)^2 - 2$.

Q80. Answer: (d) 216

The logic followed here is:
Thus, the missing term in the series is 216.
Hence, the correct answer is "Option 4";

Q81. Answer: (b) Four

Given: Seven boxes, G, H, I, J, O,P and Q, are kept one over the other. The lowermost box is numbered 1 and the topmost is numbered 7.
1) Only two boxes are kept below Q.
2) Only one box is kept above G.

7	
6	G
5	
4	

3	Q
2	
1	

3) Only one box is kept between G and H.

7	
6	G
5	
4	H
3	Q
2	
1	

4) I is kept immediately above J. P is kept at some place below O.

7	**O**
6	G
5	P
4	H
3	Q
2	I
1	J

Therefore, Four boxes are kept between O and I.

Hence, the correct answer is "Option 2".

Q82. Answer: (d) 65

Given:

Firoz's rank from the top = 38th.

Firoz's rank from the bottom = 28th.

Total persons = (Rank from Top) + (Rank from Bottom) - 1

= 38 + 28 - 1

= 66 - 1

= 65

Thus, there are 65 students in the class.

Hence, the correct answer is "Option 4".

Q83. Answer: (c) Spherical

The Correct answer is Spherical.

Key Points

• A point source emits light uniformly in all directions in an isotropic medium, where the medium has identical properties in every direction.

• The emitted light creates a wavefront that is equidistant from the point source at any given instant.

• The geometry of this wavefront is spherical, as it forms concentric spheres centered around the point source.

• Wavefronts are defined as surfaces of constant phase, and in the case of a point source, these surfaces expand radially outward, maintaining a spherical shape.

• The spherical wavefront is a fundamental concept in optics and is used to describe wave propagation in various applications.

• This behavior is explained by the Huygens' Principle, which states that every point on a wavefront acts as a source of secondary spherical wavelets, propagating outward.

• The spherical nature of the wavefront is important in many fields, including physics, acoustics, and engineering, as it helps in

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understanding wave behavior in isotropic media.

Additional Information

• Elliptical

• An elliptical wavefront is associated with sources that emit waves in an anisotropic medium or when the propagation is affected by external factors such as direction-dependent properties of the medium.

• Elliptical wavefronts are less common in nature compared to spherical wavefronts.

• Cylindrical

• Cylindrical wavefronts are generated by linear sources, such as a vibrating string or a slit in optics experiments.

• The wavefronts expand as concentric cylinders rather than spheres.

• Plane

• Plane wavefronts occur when the source is very far away or when waves propagate in a single direction without divergence, such as lasers.

• In this case, the wavefronts appear as flat surfaces rather than curved ones.

Q84. Answer: (a) Only 1 and 3

The Correct answer is Only 1 and 3.

Key Points

• The PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme was launched in 2024 to promote electric mobility in India.

• The scheme will remain in force until 31 March 2026, ensuring focused efforts to enhance electric vehicle adoption during this period.

• One of the key provisions of the scheme is to support the development of EV charging infrastructure, which is critical for the growth and usability of electric vehicles in India.

• The scheme does not provide subsidies for petrol and diesel vehicles, as its focus is on promoting sustainable and clean energy mobility solutions.

• It does not exclusively target private vehicle ownership; the scheme is designed to benefit multiple sectors, including public and commercial transport, to accelerate the transition to electric mobility.

• The scheme aligns with the government's broader goal of achieving net-zero emissions and reducing dependency on fossil fuels.

Additional Information

• Option 2: Direct subsidies for petrol and diesel vehicles

• This is incorrect because the PM E-DRIVE Scheme is focused solely on promoting electric vehicles and does not aim to subsidize conventional fuel vehicles such as petrol and diesel cars.

• The scheme is part of efforts to move away from fossil fuels and reduce carbon emissions, aligning with India's renewable energy and environmental goals.

• Option 4: Exclusive focus on private vehicle ownership

• This is incorrect because the scheme encompasses a broader scope, including public transport, commercial fleets, and shared mobility, in addition to private ownership.

• The government aims to ensure the widespread adoption of electric vehicles across various sectors to maximize environmental and economic benefits.

• Importance of EV Charging Infrastructure

• Developing robust charging networks is essential for the success of EV adoption as it addresses range anxiety and improves usability.

• It supports both urban and rural areas, ensuring equitable access to electric mobility solutions.

Q85. Answer: (a) Ooty

The correct answer is Ooty.

Key Points

• Ooty, officially known as Udhagamandalam, is a popular hill station located in the Nilgiri Hills, Tamil Nadu.

• It is widely known as the "Queen of Hill Stations" for its picturesque landscapes, pleasant climate, and rich flora and fauna.

• Ooty serves as the headquarters of the Nilgiris District.

• The hill station is situated at an altitude of approximately 2,240 meters above sea level.

• It is famous for its tea plantations, and visitors often explore the Tea Museum to learn about the history and process of tea production.

• Popular attractions in Ooty include the Ooty Lake, Botanical Garden, Doddabetta Peak, and Rose Garden.

• The Nilgiri Mountain Railway, also known as the Toy Train, is a UNESCO World Heritage Site and a major tourist attraction in

Ooty.

• The hill station is surrounded by lush greenery and is home to a wide variety of flora and fauna, making it ideal for nature lovers.

Additional Information

• Darjeeling

• Darjeeling is a hill station located in the state of West Bengal, renowned for its tea gardens and the scenic views of the Kangchenjunga mountains.

• It is home to the Darjeeling Himalayan Railway, a UNESCO World Heritage Site.

• Darjeeling is famous for its colonial architecture, vibrant culture, and the annual Darjeeling Carnival.

• Shimla

• Shimla, the capital of Himachal Pradesh, is located in the northwestern Himalayas.

• It is known for its Victorian-era architecture, bustling markets, and landmarks like the Ridge, Mall Road, and Jakhoo Temple.

• Shimla is also a popular destination for winter sports, including ice skating.

• Mussoorie

• Mussoorie is a hill station situated in Uttarakhand, often referred to as the "Queen of the Hills".

• It is famous for its Gun Hill, Kempty Falls, Camel's Back Road, and Lal Tibba.

• Mussoorie offers stunning views of the Himalayan ranges and the Doon Valley.

Q86. Answer: (c) Farazi Movement

The Correct answer is Farazi Movement.

Key Points

• The Farazi Movement originated in Bengal in the early 19th century and was initially a religious reform movement.

• It was founded by Haji Shariatullah, who aimed to purify Islam by removing un-Islamic practices and emphasizing strict adherence to the Quran and Hadith.

• Under the leadership of Dudu Miyan, the son of Haji Shariatullah, the movement evolved into a peasant movement.

• Dudu Miyan mobilized the poor peasants against the oppressive zamindars (landowners) and moneylenders.

• The movement focused on economic justice and fought against the exploitation of peasants by landlords and British colonial administrators.

• It played a significant role in organizing the rural population and addressing their grievances, which made it an important socio-economic movement in Bengal.

• The Farazis were also known for their opposition to British rule and their efforts to resist colonial exploitation.

Additional Information

• Bhill Uprising

• The Bhill Uprising was a tribal revolt that occurred in the early 19th century in western India, particularly in the regions of Khandesh and Rajasthan.

• The Bhills, an indigenous tribe, revolted against the British colonial administration and local rulers due to exploitation and loss of their traditional lands.

• The uprising was primarily tribal in nature and did not evolve into a broader peasant movement.

• Wahabi Movement

• The Wahabi Movement was a religious reform movement inspired by the teachings of Abdul Wahab of Arabia.

• It aimed to purify Islam in India and advocated for the removal of un-Islamic practices.

• It had a strong anti-colonial character and was led by figures like Syed Ahmed Barelvi.

• However, it did not evolve into a peasant movement like the Farazi Movement.

• Mappila Uprising

• The Mappila Uprising occurred in the Malabar region of Kerala and involved the Mappila Muslims.

• It was primarily a reaction against the oppressive policies of the British and the exploitative landlords.

• While it had a socio-economic aspect, it did not have the same religious reform roots as the Farazi Movement.

Q87. Answer: (d) Both (a) and (b)

The Correct answer is Both (a) and (b).

Key Points

• The Round Table Conferences (1930-1932) were a series of three conferences organized by the British government to discuss the future governance and constitutional reforms in India.

• The primary aim was to bring together representatives of the British government, Indian princely states, and Indian political leaders to discuss and frame a new constitution for India.

• Statement (a) is correct as the Round Table Conferences focused on constitutional reforms and India's future governance under British rule.

• Mahatma Gandhi, representing the Indian National Congress, attended only the Second Round Table Conference held in 1931. This makes Statement (b) accurate as well.

• Gandhi's participation in the Second Round Table Conference was a result of the Gandhi-Irwin Pact, where he agreed to attend in exchange for the release of political prisoners and the cessation of certain repressive laws.

• The Second Round Table Conference, however, failed to achieve consensus due to differences between the Indian National Congress and other representatives, including those of the princely states and communal groups.

• The outcomes of these conferences were largely inconclusive, but they laid the groundwork for the eventual framing of the Government of India Act, 1935.

Additional Information

• About the Gandhi-Irwin Pact:

• The Gandhi-Irwin Pact (1931) was an agreement between Mahatma Gandhi and the then Viceroy of India, Lord Irwin.

• It marked a temporary truce between the British government and the Indian National Congress, leading to Gandhi's participation in the Second Round Table Conference.

• Government of India Act, 1935:

• The Government of India Act, 1935 was one of the significant outcomes of the deliberations during the Round Table Conferences.

• It introduced provincial autonomy and provided for an all-India federation, though the federation part was never implemented.

• Other significant points related to the Round Table Conferences:

• The First Round Table Conference (1930) was boycotted by the Indian National Congress, as it was held during the Civil Disobedience Movement.

• The Third Round Table Conference (1932) was poorly attended, with the Congress abstaining, and it lacked major Indian representation.

Q88. Answer: (c) Only 1 and 3

The Correct answer is Only 1 and 3.

Key Points

• The Africa India Key Maritime Engagement (AIKEYME) is a multilateral exercise co-hosted by the Indian Navy and the Tanzania Peoples' Defence Force (TPDF).

• The primary objective of AIKEYME is to tackle maritime security threats, such as piracy, smuggling, and illegal fishing, while enhancing collaboration between participating nations.

• The exercise consisted of two phases:

• Harbour Phase: This phase included training on Seamanship and Visit Board Search and Seizure (VBSS), which are crucial for maritime security.

• Sea Phase: This phase focused on practical activities like Small Arms Firing, Helicopter Operations, and Search and Rescue operations.

• The exercise was planned and executed in Tanzania, specifically with the TPDF, and not in Maputo, Mozambique.

• Statement 1 is correct as it rightly mentions the co-hosting of the exercise by the Indian Navy and TPDF.

• Statement 3 is also correct as it accurately describes the activities conducted during both phases of the exercise.

• However, Statement 2 is incorrect because the exercise was not planned in Maputo, Mozambique, but rather in Tanzania.

Additional Information

• Visit Board Search and Seizure (VBSS)

• VBSS is a critical maritime operation conducted by naval or coast guard units to inspect and secure vessels suspected of illegal activities.

• It involves boarding a ship, verifying its cargo, and ensuring compliance with international maritime laws.

• VBSS is extensively utilized in tackling piracy, smuggling, and illegal arms trafficking.

• Small Arms Firing

• Small arms firing drills are crucial for enhancing the combat readiness of naval personnel.

• These activities ensure proficiency in handling and utilizing firearms effectively during maritime security operations.

• Helicopter Operations

• Helicopter operations in maritime exercises include surveillance, troop deployment, and rescue missions.

• They play a vital role in extending the operational capability of naval forces.

• Search and Rescue (SAR)

• SAR operations are conducted to locate and rescue individuals in distress at sea.
• These operations are a key component of humanitarian assistance and disaster relief missions.

Q89. Answer: (c) TESWA

Number/symbol	**6**	**÷**	**7**	**%**	**@**	**•**	**8**	**4**	**•**	**2**	**#**	**3**	**9**	**&**
Code	P	E	S	H	W	Q	G	T	I	M	Z	A	V	R

Given: 3 ÷ 7 @ 4
Rule No. (i): This condition applies because the first element (3) is a prime number and the last element (4) is an even number. The codes for these two elements will be interchanged.
Rule No. (ii): This condition does not apply because the second element (÷) is a symbol, not a perfect number.
Rule No. (iii): This condition does not apply because the third element (7) is a number, not a symbol.
Based on the applicable rule (i), the codes for the first and last elements are interchanged.
The code for 3 becomes the code for 4, which is T.
The code for ÷ is E.
The code for 7 is S.
The code for @ is W.
The code for 4 becomes the code for 3, which is A.
Thus, '3÷7@4' is coded as → TESWA.
Hence, the correct answer is "Option 3".

Q90. Answer: (d) 39

Given:
Expression: 48 - (-18) × (-60 - 72 - 92) ÷ [8 × {2 + (-6)(-9)}]
Formula Used:
Order of operations: BODMAS (Brackets, Orders, Division and Multiplication, Addition and Subtraction)
Calculation:
=> 48 - (-18) × (-60 - 72 - 92) ÷ [8 × {2 + (-6)(-9)}]
=> 48 - (-18) × (-60 - 72 - 92) ÷ [8 × {2 + 54}]
=> 48 - (-18) × (-224) ÷ [8 × 56]
=> 48 - (-18) × (-224) ÷ 448
=> 48 - (-18) × -0.5
=> 48 - 9
=> 39
The simplified value is 39.

Q91. Answer: (a) DGKQ

The logic followed here is:
Option (1): DGKQ
Option (2): GKNT
Option (3): NRUA
Option (4): QUXD
The letter-cluster that DOES NOT belong to the group is: DGKQ.
Hence, the correct answer is "Option 1".

Q92. Answer: (c) WIND-IWND - DIWN

The pattern followed here is:
WORK-OWRK - KOWR
FERN - EFRN - NEFR
Similarly,
Option 3: WIND-IWND - DIWN
Hence, the correct answer is "Option 3".

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Q93. Answer: (b) 55

Original Letter	P	Q	R	S
New Symbol	×	•	−	•

Now, given the equation: (11 S 7) P 3 R 41 S 8 P 12 R 54 = ?

After interchanging the specified letters, the new equation is:

(11 + 7) × 3 − 41 + 8 × 12 − 54 = ?

Perform operations according to BODMAS:

=> (11 + 7) × 3 − 41 + 8 × 12 − 54

=> 18 × 3 − 41 + 8 × 12 − 54

=> 54 − 41 + 96 − 54

=> 13 + 96 − 54

=> 109 − 54

=> 55

Hence, the correct answer is "Option 2".

Q94. Answer: (b) Ctrl + X

The Correct answer is Ctrl + X.

Key Points

• The Ctrl + X keyboard shortcut is used in MS Word to cut (or move) the selected text or object.

• When you use this shortcut, the selected text is removed from its current location and stored in the clipboard.

• The clipboard is a temporary storage area where the cut or copied content is saved until it is pasted elsewhere.

• After cutting, the user can paste the text to a new location by using the Ctrl + V shortcut.

• This functionality is widely used for editing and organizing documents efficiently.

• The Ctrl + X shortcut works across various programs, not just MS Word, making it a universal command in most text and editing software.

Additional Information

• Ctrl + V

• The Ctrl + V shortcut is used to paste the content stored in the clipboard to the selected location.

• This command complements the Ctrl + X (cut) and Ctrl + C (copy) commands.

• Ctrl + Z

• The Ctrl + Z shortcut is used to undo the last action performed in MS Word or other software.

• This command is helpful when you accidentally make changes and want to revert them quickly.

• Ctrl + C

• The Ctrl + C shortcut is used to copy the selected text or object to the clipboard without removing it from its original location.

• This is useful when you want to duplicate content while leaving the original intact.

Q95. Answer: (d) 5

The given code language is:

Thus, 'U' is coded as '5'.

Hence, the correct answer is "Option 4".

Q96. Answer: (b) Rs. 11,520

Shortcut Trick

Total Investment = Profit ÷ Profit% = 28,800 ÷ 25% = 28,800 × 4 = Rs. 1,15,200.

Ratio of investments = 7 : 3 : 20. Total ratio parts = 7 + 3 + 20 = 30.

Anjali's share = (3 ÷ 30) × Total Investment = 1 ÷ 10 × 1,15,200.

Anjali's Investment = Rs. 11,520.

Therefore The correct answer is Rs. 11,520.

Alternate Method

Given → Investment ratio = 7 : 3 : 20 | Profit = Rs. 28,800 | Profit% = 25%.

Formulas: Total Investment = (Profit ÷ Profit%) × 100 | Individual Investment = (Individual Ratio ÷ Total Ratio) × Total Investment.

=> Let the investments of Vikram, Anjali, and Raj be 7x, 3x, and 20x respectively.

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=> Total Investment = 7x + 3x + 20x = 30x.

=> According to the question, 25% of 30x = 28,800.

=> (25 ÷ 100) × 30x = 28,800 => 7.5x = 28,800.

=> x = 28,800 ÷ 7.5 = 3,840.

=> Anjali's investment = 3x = 3 × 3,840 = Rs. 11,520.

Therefore The correct answer is Rs. 11,520.

Additional Information

Partnership Profit Distribution

In a partnership, if the time period is the same, Profit is distributed in the same ratio as the Investments.

Investment Calculation

Total Capital = (Individual Profit × 100) ÷ (Profit percentage on total capital). Here, the 25% applies to the sum of all investments.

Q97. Answer: (a) 2453.75

Given:

Expression to simplify: 14/9 × 52/9 × 324 + 93/4

Formula Used:

1. Mixed fraction conversion: ab/c = ((a×c) + b)/c

2. Simplification of multiplication and addition.

Calculation:

14/9 × 52/9 × 324 + 93/4

=> 13/9 × 47/9 × 324 + 39/4

=> (13 × 47 × 324)/(9 × 9) + 39/4

=> 13 × 47 × 4 + 39/4

=> 2444 + 9.75

=> 2453.75

The simplified value is 2453.75.

Q98. Answer: (a) A new MS PowerPoint window opens with the blank presentation.

The Correct answer is A new MS PowerPoint window opens with the blank presentation.

Key Points

• When you start a new blank presentation in MS PowerPoint while another presentation is already open, it opens in a new window.

• This feature allows users to work on multiple presentations simultaneously without closing the current one.

• MS PowerPoint is designed to handle multiple windows, making it easier for users to copy content, compare slides, or work on different projects concurrently.

• Each presentation window operates independently, meaning changes in one presentation will not affect another unless content is explicitly copied and pasted.

• This functionality is useful in collaborative or multitasking environments where users may need to reference or edit multiple presentations.

• The ability to open multiple windows is a key feature of Microsoft Office applications, including PowerPoint, Word, and Excel.

Additional Information

• MS PowerPoint Error Messages

• Option 2 mentions an error message, but MS PowerPoint does not display an error when opening a new blank presentation alongside an existing one.

• Error messages are typically displayed in situations such as file corruption, compatibility issues, or software bugs.

• Closing Presentations Automatically

• Option 3 suggests that the current presentation closes automatically, which is incorrect as MS PowerPoint retains the current presentation when a new one is opened.

• This behavior ensures users do not lose unsaved work.

• Copying Slides Automatically

• Option 4 suggests that slides are copied automatically from the current presentation to the new one, which is not a default feature.

• Slides can be copied manually by the user using the copy-paste functionality in PowerPoint.

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Q99. Answer: (a) 2

Given:

A, B, L, M, S, T and Z are sitting around a circular table facing the centre.

T sits third to the left of S. M sits second to the left of A.

Only S sits between L and M.

B is not an immediate neighbour of T.

Thus, 2 people sit between Z and M when counted from the right of Z.

Hence, the correct answer is "Option 1".

Q100. Answer: (d) Daily Heart Rate Per Step (DHRPS)

The correct answer is Daily Heart Rate Per Step (DHRPS).

Key Points

• The Daily Heart Rate Per Step (DHRPS) is a smartwatch-based metric that tracks the relationship between an individual's heart rate and the number of steps taken daily.

• This metric was identified by researchers from Northwestern University in March 2025 as a useful predictor of cardiovascular health risks.

• The DHRPS provides insights into the efficiency of the heart during physical activity, helping to assess an individual's fitness levels.

• A higher DHRPS value may indicate potential cardiovascular strain, while lower values suggest better cardiac efficiency.

• This metric is particularly useful for individuals monitoring their heart health or engaging in fitness programs aimed at improving cardiovascular performance.

• The application of DHRPS can aid healthcare professionals in identifying at-risk patients and developing personalized health interventions.

daily health tracking.

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• Additional Information

• Wearable Activity Pressure Estimate Scale (WAPES)

• WAPES is a hypothetical metric that could potentially measure the pressure or force exerted during wearable activity.

• There is no established research or evidence linking WAPES to cardiovascular health prediction.

• It might focus more on physical exertion rather than heart-specific metrics.

• Resting Pulse-to-Movement Ratio (RPMR)

• RPMR hypothetically calculates the ratio of resting pulse rate to movement or activity levels.

• While it could provide insights into resting heart rate, it is not specifically identified as a predictor for cardiovascular health risks.

• Weekly Step-to-Cardiac Output Index (WSCO)

• WSCO could potentially measure weekly steps in relation to cardiac output.

• This metric is not widely recognized in research and may focus more on general activity tracking rather than cardiovascular health risks.

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