02

SOLVED PAPER
(Held on: 6th June 2025 Shift 02)

Instructions:

- *The test contains 100 objective type questions.*
- *All questions are compulsory.*
- *Complete the test within 90 minutes.*
- *All questions contain four alternatives, in which only one is correct.*
- *Correct Answer will carry 1 mark per Question.*
- *Incorrect answer will carry 1/3 negative mark per question.*

1. Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair 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).

(1) PK–MJ **(2)** NO–IJ
(3) FG–AB **(4)** JK–EF

2. The mean proportional between 0.06 and 6 is:

(1) 0.06 **(2)** 0.6 **(3)** 60 **(4)** 6

3. Who is the current Chief Minister of Delhi as of March 2025, and from which constituency was he/she elected in the 2025 Delhi Assembly elections?

(1) Rekha Gupta from Rajinder Nagar
(2) Rekha Gupta from Shalimar Bagh
(3) Atishi Marlena from Kalkaji
(4) Arvind Kejriwal from New Delhi

4. The simplified value of $66 - 4 \times (30 + 3) + 40$ is:

(1) -26 **(2)** -27 **(3)** -29 **(4)** -33

5. The Swadeshi Movement, launched to oppose the partition of Bengal and promote Indian goods, began in which year?

(1) 1904 **(2)** 1906 **(3)** 1907 **(4)** 1905

6. The average of 10 observations is 40. It was realised later that an observation was misread as 34 in place of 43. Find the correct average.

(1) 39.9 **(2)** 43.9 **(3)** 41.9 **(4)** 40.9

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

LJQ NLS PNU RPW ?

(1) TRZ **(2)** TRY **(3)** TSZ **(4)** TSY

8. A, B, C, D, E and F live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on till the topmost floor is numbered 6. The product of floors on which D and F live is 10. C lives immediately above E. The sum of floors on which B and D live is 11. How many people live between A and E?

(1) 3 **(2)** 1 **(3)** 2 **(4)** 4

9. Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. All numbers are single-digit numbers.

(Left) 5 $ 5 % 8 7 * 5 % & 8 @ 2 6 2 £ 3 8 1 & 5 6 (Right)

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

(1) 2 **(2)** 3 **(3)** 4 **(4)** 7

10. Who among the following has been appointed as the Chairman of Indian Space Research Organisation in January 2025?

(1) Manish Singhal **(2)** Dr. Mayank Sharma
(3) Dr. V. Narayanan **(4)** Bhuvnesh Kumar

11. What is the purpose of pressing Alt + Tab on the keyboard of a computer system?

(1) Switches between open applications
(2) Shuts down the system
(3) Minimises all windows
(4) Opens Task Manager

12. The ratio of the market prices of gram and pea is 2 : 5, and the ratio of the quantities consumed by a family is 4 : 3. Find the ratio of the expenditure on gram to pea.

(1) 9 : 16 **(2)** 3 : 4 **(3)** 8 : 15 **(4)** 17 : 10

13. The average of first 13 whole numbers is:

(1) 6 **(2)** 6.5 **(3)** 5 **(4)** 7

14. In India, a city with a population of less than 10,000 and more than 5,000 is classified as which type of class town?

(1) Class VI **(2)** Class I

(3) Class V (4) Class II

15. In India, which of the following is a groundwater-based irrigation source?
(1) Pond (2) Tank
(3) River canal (4) Open-well

16. Ashish has ₹1,218 with him. He divides it amongst his sons Arun and Mahesh and asks them to invest it at 10% rate of interest compounded annually. It was seen that Arun and Mahesh got same amount after 11 and 12 years, respectively. How much (in ₹) did Ashish give to Mahesh?
(1) 430 (2) 580 (3) 638 (4) 738

17. Consider a hierarchical file system. If a user attempts to delete a non-empty directory using a standard 'delete directory' command without any recursive options, what is the most likely outcome?
(1) The operating system will automatically delete all files and subdirectories within it.
(2) The operating system will prompt the user for confirmation to delete each item within the directory.
(3) Only the directory structure will be removed, leaving the files and subdirectories orphaned.
(4) The operating system will return an error indicating that the directory is not empty.

18. What does OCI stand for in the context of Indian citizenship?
(1) Overseas Card for Indians
(2) Official Citizen of India
(3) Overseas Citizen of India
(4) Original Citizen Identity

19. Which leader presided over the 1929 Lahore Session of the Indian National Congress, where the resolution for 'Purna Swaraj' was passed?
(1) Subhas Chandra Bose
(2) Jawaharlal Nehru
(3) Lala Lajpat Rai
(4) C.R. Das

20. One pipe can fill the tank in 9 min while another pipe can empty completely the filled tank in 90 min. If both the pipes are operated together on empty tank, how long (in min) will it take to fill half of the tank?
(1) 5 (2) 10 (3) 6 (4) 11

21. A vendor bought lemons at 6 for ₹1. How many lemons must he sell for ₹1 to gain 100% ?
(1) 3 (2) 7 (3) 4 (4) 5

22. In a certain code language, 'GATE' is coded as '4628' and 'TURN' is coded as '3567'. What is the code for 'T' in the given code language?
(1) 4 (2) 6 (3) 3 (4) 2

23. The sum of the present ages of a father and his son is 18 years more than 4 times the present age of the son. After 5 years, 4 times the father's age will be 8 years less than 14 times the son's age. The difference (in years) between the present ages of the father and the son is:
(1) 49 (2) 45 (3) 48 (4) 53

24. The volume of a solid cylinder is 5852 cm^3 and its height is 38 cm. What is the total surface area of the solid cylinder? (Round your answer to the nearest integer.)
$\left(\text{Use } \pi = \frac{22}{7}\right)$
(1) 1969 cm^2 (2) 1980 cm^2
(3) 1954 cm^2 (4) 1936 cm^2

25. In which city of India was the Arctic Circle India Forum held on 3–4 May 2025?
(1) Kolkata (2) Patna
(3) Chandigarh (4) New Delhi

26. Select the number from among the given options that can replace the question mark (?) in the following series.
139 136 131 124 115 ? 91
(1) 106 (2) 109 (3) 104 (4) 101

27. Simplify $(5x - 2y)^2 + (2x + 5y)^2 + (5x + 2y)(5x - 2y)$.
(1) $-55x^2 + 25y^2$ (2) $-54x^2 - 25y^2$
(3) $54x^2 + 25y^2$ (4) $-55x^2 - 25y^2$

28. Which of the following Urban Local Government Bodies in India was discontinued after 1992?
(1) Municipal Committee/Council
(2) Municipal Corporation
(3) Notified Area Committee
(4) Nagar Panchayat

29. A, B, C, D, G, H, and I are sitting around a circular table facing the centre. B sits third to the left of I. G sits second to the left of H. Only I sits between A and G. C is not an immediate neighbour of B. How many people sit between D and G when counted from the right of D?
(1) Four (2) One (3) Two (4) Three

30. What is the primary function of a Notified Area Committee in India?
(1) Regulate local elections for better local self-governance.
(2) Oversee military areas to help address military and civilian issues.
(3) Handle port activities and ensure their smooth functioning.
(4) Manage developing towns due to get a municipality status.

31. Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, a certain mathematical operation on the second number results in the third number and so on. Which of the given options follows the same set of operations as in the question?
(NOTE: A two/three-digit number cannot be broken into individual digits for operations, e.g., if 37 is followed by 10, the operation cannot be 3 + 7 as a two-digit number cannot be broken into individual digits.)
14 – 15 – 20 – 40; 19 – 20 – 25 – 50
(1) 8 – 10 – 15 – 30 (2) 3 – 4 – 9 – 14
(3) 7 – 9 – 18 – 20 (4) 5 – 6 – 11 – 22

32. In a certain code language, 'BLUE' is coded as '4628' and 'LOAD' is coded as '3567'.
What is the code for 'L' in the given code language?
(1) 3 **(2)** 6 **(3)** 7 **(4)** 8

33. Refer to the following number and symbol series and answer the question that follows.
Counting to be done from left to right only. All numbers are single-digit numbers.
(Left) @ $ & 7 7 @ 5 7 & & 4 1 9 3 $ 7 8 & 7 ∈ ∈ 1 (Right)
How many such symbols are there each of which is immediately preceded by a number and also immediately followed by a symbol?
(1) 5 **(2)** 4 **(3)** 2 **(4)** 3

34. Simplify: $\sqrt[6]{4096} + \sqrt[4]{50625} + \sqrt[3]{21952} + \sqrt{3364}$
(1) 55 **(2)** 105 **(3)** 24 **(4)** 75

35. If $a^2 + b^2 = 111$, $a \times b = 27$, and $a > b$, find the value of $\left(\frac{a-b}{a+b}\right)$.
(1) $\sqrt{\frac{53}{165}}$ **(2)** $\sqrt{\frac{57}{165}}$ **(3)** $\frac{53}{165}$ **(4)** $\frac{57}{165}$

36. Which of the following letter–number clusters will replace the question mark (?) in the given series to make it logically complete?
GKO 11, IMQ 13, KOS 15, MQU 17, ?
(1) OSW 19 **(2)** NQS 21
(3) ORT 21 **(4)** NTZ 19

37. If 'A' stands for '×', 'B' stands for '− ', 'C' stands for '+', and 'D' stands for '÷', then the resultant of which of the following will be 9?
(1) 8 B 3 A 10 C 2 D 5
(2) 8 B 3 C 10 A 2 D 5
(3) 8 A 3 C 10 B 2 D 5
(4) 8 C 3 B 10 A 2 D 5

38. Which movement or idea is associated with the Wardha Scheme of Basic Education proposed in 1937?
(1) Nai Talim or Basic Education
(2) Free Higher Education
(3) Education through English
(4) Adult Literacy Mission

39. Which kitchen process is an example of osmosis?
(1) Placing raw mango in a concentrated salt solution.
(2) Grinding spices together.
(3) Flushing food items with nitrogen.
(4) Boiling pasta in milk.

40. Tanveer starts from point B and drives 2 km towards west. He then takes a right turn, drives 4 km, turns left and drives 5 km. He then takes a right turn and drives 3 km. He takes a final right turn, drives 7 km and stops at point P. How far (shortest distance) and towards which direction should he drive in order to reach point B again (all turns are 90° turns only unless specified)?
(1) 5 km south **(2)** 7 km south
(3) 6 km south **(4)** 4 km south

41. Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair 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.)
(1) IM−KO **(2)** SP−QI
(3) LP−NR **(4)** GK−IM

42. Raju starts from point A and drives 9 km towards the west. He then takes a left turn, drives 7 km, turns left and drives 11 km. He then takes a left turn and drives 13 km. He takes a final left turn, drives 2 km and stops at point P. How far (shortest distance) and towards which direction should he drive in order to reach point A again? (All turns are 90° turns only unless specified.)
(1) 5 km to the north **(2)** 6 km to the south
(3) 5 km to the south **(4)** 6 km to the north

43. In a certain code language, 'BRAVE' is coded as '29317' and 'VIBER' is coded as '38792'. What is the code for 'A' in the given code language?
(1) 7 **(2)** 2 **(3)** 1 **(4)** 9

44. Surendra has 102 L of Oil A and 224 L of Oil B. He fills a number of identical containers with the two types of oil in a manner that each container has only one type of oil, and all containers are completely filled. What can be the maximum volume (in L) of each container that Surendra uses, so that all the oil that Surendra has, of both the types, can be poured into these containers?
(1) 1 **(2)** 8
(3) 9 **(4)** 2

45. Under the Digital Agriculture Mission launched in 2024, which of the following is/are among the foundational registries of AgriStack?
1. Farmers' Registry
2. Village Panchayat Audit Database
3. Crop Sown Registry
(1) 2 and 3 only **(2)** All 1, 2, and 3
(3) 1 only **(4)** 1 and 3 only

46. In a multitasking Operating System, what role does RAM primarily play when multiple applications are open simultaneously?
(1) It acts as permanent storage for installed software.
(2) It temporarily holds active program data and instructions to enable fast switching between tasks.
(3) It queues printing tasks before they reach the printer.
(4) It processes user input commands from external devices like keyboard or mouse.

47. What is the purpose of the 'One Nation, One Permit' scheme proposed by the Ministry of Road Transport and Highways?
(1) Single road ticketing platform system.
(2) Common civil aviation license.
(3) Ease of transport for inter-state freight vehicles.
(4) Permit for urban parking facilities.

48. Who administered the agrahara lands during the post-Gupta period?
(1) Village assemblies **(2)** Brahmins
(3) Feudal lords **(4)** Monks

49. Find the surface area of a sphere whose diameter is equal to 112 cm.
(1) 36,976 cm^2 **(2)** 38,980 cm^2
(3) 37,948 cm^2 **(4)** 39,424 cm^2

50. Find the duration (in years) in which ₹1,200 will amount to ₹2,220 at a rate of 20% per annum simple interest.
(1) 6.25 **(2)** 3.25
(3) 4.25 **(4)** 5.25

51. What is the Gram Sabha in the context of the Panchayati Raj system in India?
(1) A block-level committee.
(2) A judicial body for urban areas.
(3) The deliberative assembly of all eligible village residents.
(4) An advisory council of State representatives.

52. What is the primary contributor to the sour taste in foods like lemons, vinegar and yoghurt?
(1) Alkaloids **(2)** Salts
(3) Bases **(4)** Acids

53. Free legal aid is part of which part of the Indian Constitution?
(1) Preamble **(2)** Directive Principles
(3) Fundamental Rights **(4)** Fundamental Duties

54. Who among the following has been appointed as the Comptroller General of India in November 2024?
(1) Mahesh Kumar Aggarwal
(2) Tuhin Kanta Pandey
(3) K. Sanjay Murthy
(4) Dr. V Narayanan

55. GV 14 is related to LS 5 in a certain way. In the same way, HQ 15 is related to MN−4. To which of the given options is MG 0 related, following the same logic?
(1) NY−6 **(2)** RD−9
(3) BG–7 **(4)** HR–3

56. Which of the following best explains why uracil is used in RNA instead of thymine?
(1) Uracil enhances RNA splicing.
(2) Thymine is not recognised by ribosomes.
(3) Thymine inhibits transcription.
(4) Uracil is energetically recognised cheaper to synthesise.

57. The market price of a bed is ₹1,600, which is 25% above the cost price. It is sold at a discount of 16% on the market price. Find the profit percentage.
(1) 5% **(2)** 4%
(3) 6% **(4)** 7%

58. Each of the digits in the number 8569142 is arranged in the descending order from left to right. The position(s) of how many digits will remain unchanged in the new number thus formed as compared to that in the original number?
(1) Three **(2)** Four
(3) Two **(4)** One

59. F is the brother of G.
G is the wife of H.
H is the son of I.
I is the wife of J.
How is F related to J?
(1) Father **(2)** Son's wife's brother
(3) Son **(4)** Son's wife's father

60. Which Indian English poet's first poetry collection titled 'The Striders', published in 1966, received a Poetry Book recommendation?
(1) A. K. Ramanujan **(2)** Nissim Ezekiel
(3) R. Parthasarathy **(4)** Dom Moraes

61. Let AB and CD be two parallel lines and PQ be a transversal such that PQ intersects AB at the point R and CD at the point S, respectively. If $\angle BRP = (2x + 13)°$ and $\angle DSP = (3x - 22)°$ then find $\angle CSP$.
(1) 105° **(2)** 95°
(3) 97° **(4)** 83°

62. How much international bandwidth does Airtel's 2Africa Pearls 2025 undersea cable landing system add?
(1) Over 200 tbps **(2)** Over 500 tbps
(3) Over 100 tbps **(4)** Over 50 tbps

63. According to the Economic Survey 2023–24, how many Indians are estimated to have escaped multidimensional poverty between 2015–16 and 2019–21?
(1) 16.5 crore **(2)** 13.5 crore
(3) 10 crore **(4)** 20.5 crore

64. This question is based on the five 3-digit numbers given below.
(Left) 910 316 525 204 303 (Right)
(Example: 697 − First digit = 6, second digit = 9 and third digit = 7)
(NOTE: All operations to be done from left to right.)
What will be the resultant if the first digit of the highest number is added to the second digit of the lowest number?
(1) 9 **(2)** 12
(3) 8 **(4)** 10

65. RWKA is related to TULZ in a certain way based on the English alphabetical order. In the same way, VSMY is related to XQNX. To which of the given options is ZOOW related, following the same logic?
(1) BMPV **(2)** CLQU
(3) ALOV **(4)** CNPW

66. A man has to cover a distance of 753 km in 12 h. If he covers two-third of this distance in two-third of the time, then what should his speed (in km/h) be to cover the remaining distance in the time left?
(1) 41.8 **(2)** 31.3
(3) 52.25 **(4)** 62.75

67. M, N, O, P, Y and Z live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it is numbered 2 and so on till the topmost floor is numbered 6. O lives on floor numbered 4. Only two people live between O and P. Only M lives between O and N. Y lives immediately below O. Who lives on floor numbered 2?

(1) N **(2)** Z
(3) M **(4)** Y

68. Manjit's salary is ₹10,000 per month. He spends ₹6,000 on house rent and ₹3,000 on bills, and the rest of the amount is his monthly savings. Find his savings (in ₹) in a year, if in the month of his birthday, he spent all his monthly savings on birthday celebrations.

(1) 10,000 **(2)** 12,000
(3) 9,000 **(4)** 11,000

69. When using the 'Replace' function (Ctrl + H) in MS PowerPoint, which of the following options allows users to replace only whole words and not parts of words?

(1) Use wildcards
(2) Sounds like (English)
(3) Find whole words only
(4) Match case

70. Which of the following numbers is divisible by 41?

(1) 7995 **(2)** 7431
(3) 8537 **(4)** 7889

71. The area of a rectangle increases by 8 m^2 if its length is increased by 5 m and breadth is decreased by 7 m. If the length is decreased by 5 m and breadth is increased by 8 m, then its area increases by 33 m^2. What is the perimeter of the original rectangle (in m)?

(1) 575 **(2)** 576
(3) 573 **(4)** 574

72. Mr. W travelled 370 km, 390 km and 720 km at speeds of 37 km/h, 5 km/h and 8 km/hr, respectively. Find his average speed in km/hr.

(1) $9\frac{21}{89}$ **(2)** $9\frac{30}{89}$
(3) $8\frac{27}{89}$ **(4)** $8\frac{28}{89}$

73. When and where is the second part of the Fifth Session (INC-5.2) of the Intergovernmental Negotiating Committee (INC) on plastic pollution scheduled to take place?

(1) September 2025 in Paris, France
(2) July 2025 in Nairobi, Kenya
(3) August 2025 in Geneva, Switzerland
(4) October 2025 in Ottawa, Canada

74. Find the angle of elevation of the top of a $250\sqrt{3}$ m high tower, from a point which is 250 m away from its foot.

(1) 75° **(2)** 60°
(3) 45° **(4)** 30°

75. On selling a wardrobe at ₹3,437, the value of gain is 75% more than the value of loss incurred on selling it at ₹3,338. In order to gain 50%, find the selling price (in ₹).

(1) 5,061 **(2)** 5,058
(3) 5,062 **(4)** 5,059

76. Seven people, I, J, K, L, O, P and Q are sitting in a row, facing north. Only J sits to the left of Q. Only four people sit between J and I. Only O sits between P and K and P is not an immediate neighbour of I. Who sits at the extreme right end of the row?

(1) O **(2)** K
(3) L **(4)** I

77. Factorise the polynomial $x^4 - 10x^2 + 22$ into product of two quadratic polynomials.

(1) $\left(x^2-4+\sqrt{3}\right)\left(x^2-4-\sqrt{3}\right)$
(2) $\left(x^2-3+\sqrt{3}\right)\left(x^2-3-\sqrt{3}\right)$
(3) $\left(x^2-2+\sqrt{3}\right)\left(x^2-2-\sqrt{3}\right)$
(4) $\left(x^2-5+\sqrt{3}\right)\left(x^2-5-\sqrt{3}\right)$

78. Select the pair that follows the same pattern as that followed by the two sets of pairs given below. Both pairs follow the same pattern.
ZIL : ARO
GRZ : TIA

(1) JPE : QJT **(2)** MAP : NZJ
(3) LOT : OKG **(4)** XMS : CNH

79. Which of the following is NOT a feature of subsistence farming?

(1) Traditional seed varieties
(2) Use of family labour
(3) Use of high-end machinery
(4) Manual agricultural practices

80. Piyush ranked 24th from the top and 55th from the bottom in his class. How many students are there in his class?

(1) 79 **(2)** 77
(3) 78 **(4)** 76

81. Who among the following won the 2024 Booker Prize, and what is the title of the winning novel?

(1) Rachel Kushner–*Creation Lake*
(2) Samantha Harvey–*Orbital*
(3) Percival Everett–*James*
(4) Anne Michaels–*Held*

82. Pipe A can fill a tank in 18 min, while pipe B can empty the completely filled tank in 27 min. Initially, pipe A is opened and after 6 min pipe B is also opened. In how much time (in min) will the remaining tank be filled completely?

(1) 36 **(2)** 32
(3) 35 **(4)** 21

83. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of

the given conclusions logically follow(s) from the statements.

Statements:

All crabs are ties.

Some ties are hooves.

Some hooves are vents.

Conclusions:

(I): Some vents are crabs.

(II): Some hooves are crabs.

(1) Only conclusion (II) follows.

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

(3) Neither conclusion (I) nor (II) follows.

(4) Only conclusion (I) follows.

84. Which of the following is not a surrounding feature of the Thar Desert?

(1) Aravalli Range **(2)** Vindhya Hills

(3) Rann of Kachchh **(4)** Indus River Plain

85. 2% of 50% of a number is what percentage of that number?

(1) 100% **(2)** 0.1%

(3) 1% **(4)** 52%

86. Who among the following was awarded the Olympic Order by the International Olympic Committee (IOC) in July 2024?

(1) Abhinav Bindra **(2)** Manu Bhaker

(3) Neeraj Chopra **(4)** Mary Kom

87. In December 2024, PM Modi made a historic visit to which Gulf country, marking the first such visit by an Indian Prime Minister in 43 years?

(1) Kuwait **(2)** Oman

(3) Bahrain **(4)** Qatar

88. What is the difference between dragging text with the mouse (left-click) and Ctrl + dragging text in MS Word 365?

(1) Both actions move the text.

(2) Dragging moves the text; Ctrl + dragging copies it.

(3) Dragging deletes the text; Ctrl + dragging pastes it.

(4) Ctrl + dragging changes the font style.

89. If '$-$' means '$\div$', '$\div$' means '$\times$', '$\times$' means '$+$' and '$+$' means '$-$', then what will come in place of the question mark (?) in the following equation?

$1568 - 16 + 4 \div 5 \times 22 = ?$

(1) 492 **(2)** 294

(3) 100 **(4)** 113

90. Which among the following significant changes was introduced in the Waqf (Amendment) Act, 2025?

(1) Mandating representation of at least two Muslim women on Waqf Boards.

(2) Privatisation of Waqf properties.

(3) Abolition of the Central Waqf Council.

(4) Exemption of Waqf properties from legal scrutiny.

91. What will come in place of the question mark (?) in the following equation, if '$+$' and '$-$' are interchanged and 'x' and '$\div$' are interchanged ?

$52 \div 15 - 189 \times 9 + 117 = ?$

(1) 684 **(2)** 672

(3) 688 **(4)** 678

92. 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 :: ?

: RND :: QRX : %

(1) # = MQB, % = FFT

(2) # = MRQ, % = HHN

(3) # = PQC, % = YYP

(4) # = PMB, % = SSZ

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

801 800 797 792 785 ?

(1) 773 **(2)** 775

(3) 776 **(4)** 774

94. The mode of the observations 4, 3, 8, 7, 3, 7, 3, 1, 1, 3, 8, 3, 3, 5 and 3 is:

(1) 4 **(2)** 7

(3) 3 **(4)** 8

95. Whom did Chandragupta II marry after defeating the Saka king?

(1) Kubernaga **(2)** Kumarrani

(3) Parbatidevi **(4)** Ruprekha

96. The mode and median of a data set is 89.7 and 32, respectively. What is the mean of the data set? (Use empirical formula.)

(1) 2.6 **(2)** 11.26

(3) 5 9 **(4)** 3.15

97. What is the title of the first poetry collection by Nissim Ezekiel, one of the most celebrated poets in Indian English Literature?

(1) Echoes of the Soul

(2) Shadows and Dreams

(3) The Unfinished Verse

(4) A Time of Change

98. Which initiative was launched on 25 September 2014 to facilitate investment, foster innovation, build best in class infrastructure and make India a hub for manufacturing, design and innovation?

(1) Make in India initiative

(2) Industrial Corridor Development Programme

(3) Start Up India initiative

(4) Stand Up India Initiative

99. As per the NFHS-5 (2019-21), what is the approximate percentage of households in India with access to improved sanitation facilities?

(1) 70% **(2)** 85%

(3) 65% **(4)** 55%

100. What is the main goal of the PM Gati Shakti initiative?

(1) Strengthen healthcare facilities.

(2) Improve transportation and logistics.

(3) Increase agricultural productivity.

(4) Enhance digital infrastructure.

❑❑

ANSWER KEY

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

SOLVED YEAR PAPER—02

HINTS AND SOLUTIONS (6th June 2025 Shift 02)

1. **Correct option is (1).**
Explanation:
The given pattern:
P K
↓ –3 ↓ –1
M J
N O
↓ –5 ↓ –5
I J
F G
↓ –5 ↓ –5
A B
J K
↓ –5 ↓ –5
E F

2. **Correct option is (2).**
Explanation: Let the two numbers be a, b.
Mean proportion $= \sqrt{ab}$
$= \sqrt{0.06 \times 6}$
$= 0.6$

3. **Correct option is (2).**
Explanation: Rekha Gupta is the current Chief Minister of Delhi as of March 2025. She was elected from Shalimar Bagh after she defeated Bandana Kumari. This win was significant for the BJP as it returned to power in Delhi after 27 years. The Delhi legislative assembly has a strength of 70 members who are directly elected from 70 constituencies.

4. **Correct option is (1).**
Explanation: Using BODMAS rule,
$66 - 4 \times (30 + 3) + 40$
$= 66 - 4 \times 33 + 40$
$= 106 - 132$
$= -26$

5. **Correct option is (4).**
Explanation: The Swadeshi Movement was launched in response to the partition of Bengal that took place in 1905. The Movement was launched on 7 August 1905 in the Town Hall, Calcutta, by Mahatma Gandhi. He urged the people to boycott foreign goods and start using domestic goods.

6. **Correct option is (4).**
Explanation:
Average of 10 observations = 40
Misread as 34 in place of 43.
Difference $= 43 - 34$
$= 9$
$\therefore$ Correct average $= 40 + \frac{9}{10}$
$= 40.9$

7. **Correct option is (2).**
Explanation: Given pattern:
L J Q
↓ +2 ↓ +2 ↓ +2
N L S
↓ +2 ↓ +2 ↓ +2
P N U
↓ +2 ↓ +2 ↓ +2
R P W
↓ +2 ↓ +2 ↓ +2
T R Y
So, the missing term is TRY.

8. **Correct option is (2).**
Explanation: Given pattern:
6 B
5 D
4 C
3 E
2 F
1 A
Only F lives between A and E.

9. **Correct option is (1).**
Explanation: According to the question, there are only two numbers which is immediately preceded by a number and also immediately followed by a number:
262, 381

10. **Correct option is (3).**
Explanation: Dr. V. Narayanan was appointed as the Chairman of the Indian Space Research Organisation (ISRO) in January 2025. Before being appointed as Chairman, he served as the Director of the Liquid Propulsion Systems Centre (LPSC). He succeeded Dr. Sreedhara Panicker Somanath. ISRO is India's National Space Agency and is headquartered in Bengaluru.

11. **Correct option is (1).**
Explanation: Pressing Alt + Tab on the keyboard switches between open applications. There is no need to minimise or close windows.

12. **Correct option is (3).**
Explanation: The ratio of the price of gram and pea $= 2 : 5$
Consumption ratio $= 4 : 3$
So, expenditure ratio $= 2 \times 4 : 5 \times 3$
$= 8 : 15$

13. **Correct option is (1).**
Explanation: Numbers = 0, 1, 2,…, 12
$$\text{Average} = \frac{\sum_{r=0}^{12} r}{13}$$

$$= \frac{12 \times 13}{2 \times 13}$$
$$= 6$$

14. Correct option is (3).

Explanation: The Census of India classifies cities in the following categories:

- Class I: Population 1 lakh and above
- Class II: Population 50,000–99,999
- Class III: Population 20,000–49.999
- Class IV: Population 10,000–19,999
- Class V: Population 5,000–9,999
- Class VI: Population below 5,000

15. Correct option is (4).

Explanation: In India, an open-well is a groundwater-based irrigation source, especially in rural parts. An open-well draws water from underground aquifers and is a classic example of a groundwater-based irrigation system. They are cost-effective as the water is recharged naturally through rainwater.

In India, irrigation sources are divided into surface water (like rivers, tanks) and groundwater sources (like wells and tube wells).

16. Correct option is (2).

Explanation: Ashish has money = ₹1,218

Let Mahesh got ₹x.

Arun invested for 11 years, therefore his amount after 11 years

$$= (1218 - x)\left(1 + \frac{10}{100}\right)^{11}$$

Mahesh invested for 12 years, therefore his amount after 12 years

$$= x\left(1 + \frac{10}{100}\right)^{12}$$

Now,

$$x\left(1 + \frac{10}{100}\right)^{12} = (1218 - x)\left(1 + \frac{10}{100}\right)^{11}$$
$$1.1x = 1218 - x$$
$$2.1x = 1218$$
$$x = \frac{1218}{2.1}$$
$$x = 580$$

17. Correct option is (4).

Explanation: If a user attempts to delete a non-empty directory using a standard 'delete directory' command without any recursive options, the operating system will return an error indicating that the directory is not empty.

18. **Correct option is (3).**

Explanation: OCI stands for Overseas Citizen of India. It is an immigration status authorising a foreign citizen of Indian origin to live and work in India for an indefinite period. However, OCI does not have Indian citizenship as India does not allow dual citizenship. OCI is a special status provided by the Government of India under the Citizenship Act, 1955.

19. Correct option is (2).

Explanation: The Indian National Congress passed the historic 'Purna Swaraj' resolution at its Lahore session on 19 December 1929. This session was conducted under Jawaharlal Nehru. The public declaration of the same was made on 26 January, 1930 in which Indians were urged to celebrate this day as 'Independence Day.'

20. Correct option is (1).

Explanation:

In 1 min the pipe can A fil $= \frac{1}{9}$ part

In 1 min the pipe can B empty $= \frac{1}{90}$ part

Net filling rate $= \frac{1}{9} - \frac{1}{90}$

$$= \frac{9}{90}$$
$$= \frac{1}{10}$$

Time required $= \frac{1}{2} \div \frac{1}{10}$

$$= \frac{10}{2}$$
$$= 5 \text{ min}$$

21. Correct option is (1).

Explanation:

Price of 6 lemon = ₹1

Profit = 100%

Selling price = 1 + 1 = 2

He sold 6 lemons for ₹2.

∴ 3 lemons cost ₹1.

22. Correct option is (2).

Explanation:

G A(T)E = 4(6)2 8

(T)URN = 3 5(6)7

After checking the common alphabet and and common digit code:

Code for T = 6

23. Correct option is (3).

Explanation: Let age of father = f

Age of son = s

According to the question,

$$f + s = 18 + 4s$$
$$f - s = 18 \quad \ldots (1)$$
$$4(f + 5) = 14(s + 5) - 8$$
$$4f - 14s = 42$$
$$2f - 7s = 21 \quad \ldots (2)$$

From Eqs (1) and (2), we get,

$$2(3s + 18) - 7s = 21$$
$$6s + 36 - 7s = 21$$
$$s = 15$$

Now, from Eq. (1),

$f - 3s = 18$

$f - s = 18 + 2s$

$= 18 + 2 \times 15 = 48$

24. Correct option is (2).

Explanation:

Volume = 5852

Height = 38

Volume = $\pi r^2 h$

$\therefore 5852 = \frac{22}{7} \times r^2 \times 38$

$r^2 = 49$

$r = 7$

Total surface area = $2\pi rh + 2\pi r^2$

$= 2 \times \frac{22}{7} \times 7 \times 38 + 2 \times \frac{22}{7} \times 7^2$

$= 1672 + 308 = 1980 \text{ cm}^2$

25. Correct option is (4).

Explanation: The India Forum was co-hosted by Arctic Circle and the Observer Research Foundation (ORF), in collaboration with the Ministry of External Affairs and the Ministry of Earth Sciences of India. It took place in New Delhi at the Taj Palace on 3–4 May 2025. The theme of the Forum was 'The Polar Order: The Arctic and Asia | Science-Geopolitics-Climate-Business.

26. Correct option is (3).

Given pattern:

139 − 3 = 136

136 − 5 = 131

131 − 7 = 124

124 − 9 = 115

So, missing term = 115 - 11 = 104

27. Correct option is (3).

Explanation:

$(5x - 2y)^2 + (2x + 5y)^2 + (5x + 2y)(5x - 2y)$

$= 25x^2 + 4y^2 - 20xy + 4x^2 + 25y^2 + 20xy + 25x^2 - 4y^2$

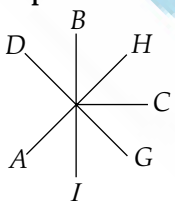
$= 54x^2 + 25y^2$

28. Correct option is (3).

Explanation: The 74th Constitutional Amendment of 1992 came into force on 1 June, 1993. It is also known as Nagarpalika Act, and Article 243Q under the Amendment provides for the establishment of three kinds of Municipalities in every state. These are Nagar Panchayat, Municipal Corporation and Municipal Council.

29. Correct option is (3).

Explanation:



A and I sit between D and G when counted from the right of D.

30. Correct option is (4).

Explanation: A Notified Area Committee (NAC) in India manages developing towns that are due to get a municipality Status. The State Government appoints this committee that provides transitional governance until a Municipal Corporation is established. NAC plays a crucial role in maintaining basic civil amenities, including public health, road maintenance and waste management in developing towns.

31. Correct option is (4).

Explanation:

$14 \xrightarrow{+1} 15 \xrightarrow{+5} 20 \xrightarrow{\times 2} 40$

$19 \xrightarrow{+1} +20 \xrightarrow{+5} 25 \xrightarrow{\times 2} 50$

Similarly,

$5 \xrightarrow{+1} 6 \xrightarrow{+5} 11 \xrightarrow{\times 2} 22$

32. Correct option is (2).

Explanation: B (L) U E = 4 (6) 2 8

(L) O A D = 3 5 (6) 7

So, Code for L = 6

33. Correct option is (3).

Explanation: According to the question, there are only two symbols, which is immediately preceded by a number and also immediately followed by a symbol:

7&&, 7∈∈

34. Correct option is (2).

Explanation:

$\sqrt[6]{4096} + \sqrt[4]{50625} + \sqrt[3]{21952} + \sqrt{3364}$

$= 4 + 15 + 28 + 58 = 105$

35. Correct option is (2).

Explanation:

$a^2 + b^2 = 111$

$ab = 27$

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

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

$(a + b)^2 = 111 + 54 = 165$

$(a - b)^2 = 111 - 54 = 57$

$\frac{(a-b)^2}{(a+b)^2} = \frac{57}{165}$

$\therefore \quad \frac{a-b}{a+b} = \sqrt{\frac{57}{165}}$

36. Correct option is (1).

Explanation: The given pattern:

G	K	O	11
↓ +2	↓ +2	↓ +2	↓ +2
I	M	Q	13
↓ +2	↓ +2	↓ +2	↓ +2
K	O	S	15
↓ +2	↓ +2	↓ +2	↓ +2
M	Q	U	17
↓ +2	↓ +2	↓ +2	↓ +2
O	S	W	19

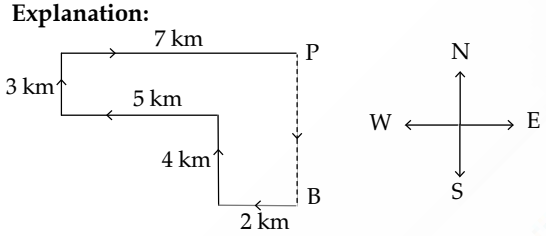
So, missing term is OSW 19.

37. **Correct option is (2).**
Explanation: According to the question, from option (2),
$8 - 3 + 10 \times 2 \div 5$
Using BODMAS rule,
$8 - 3 + 4 = 9$

38. **Correct option is (1).**
Explanation: Mahatma Gandhi proposed the Wardha Scheme of Basic Education in 1937. It is also known as Nai Talim and promoted awareness and education on India's culture. The premise of this scheme was 'Learning by doing.' It proposed providing free education to all boys and girls between the ages of seven to fourteen. He seeded this idea to revamp the education system at a conference in Wardha, Maharashtra.

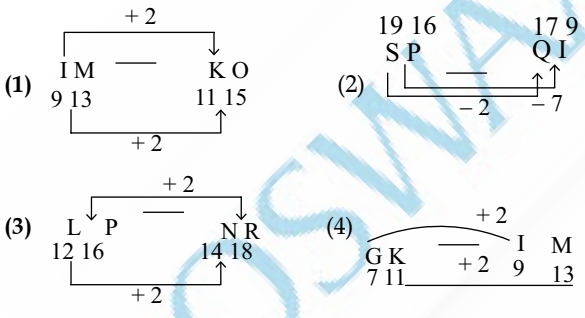
39. **Correct option is (1).**
Explanation: Placing raw mango in a concentrated salt solution is an example of osmosis. Osmosis is the movement of water from an area of low solute concentration to high solute concentration through a semi-permeable membrane. When a mango is placed in a highly concentrated solution, it will shrink as salt will draw out water from the mango.

40. **Correct option is (2).**
Explanation:



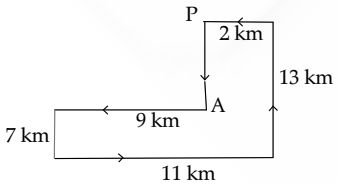
So, required distance PB = 3 + 4 = 7 km south.

41. **Correct option is (2).**
Explanation:



Only option (2) is not following the same pattern.

42. **Correct option is (2).**
Explanation:



PA = 13 − 7 = 6 km to the south.

43. **Correct option is (3).**
Explanation:
B R A V E = 2 9 3 1 7
V I B E R = 3 8 7 9 25
Common alphabets are BRVE and common numbers are 9372.
Code for B R V E = 9372
∴ Code for A = 1.

44. **Correct option is (4).**
Explanation: Oil A = 102 L
Oil B = 224 L
$102 = 2 \times 3 \times 17$
$224 = 7 \times 32$
∴ HCF (102, 224) = 2
Maximum volume = 2 L

45. **Correct option is (4).**
Explanation: The Government approved the Digital Agriculture Mission in 2024 with an outlay of ₹2,817 crores.
The mission is designed as an umbrella scheme to support various digital agriculture initiatives. These include creating Digital Public Infrastructure (DPI), implementing the Digital General Crop Estimation Survey (DGCES), and supporting IT initiatives by the Central Government, State Governments and Academic and Research Institutions. AgriStack project is one of the major components of this Mission, which consists of three foundational registries or databases in the agriculture sector, i.e., the Farmers' Registry, Geo-referenced Village Maps and the Crop Sown Registry. The State Governments/Union Territories will create and maintain the registries.

46. **Correct option is (2).**
Explanation: In a multitasking Operating System, RAM temporarily holds active program data and instructions to enable fast switching between tasks. RAM stands for Random Access Memory. It serves as a temporary memory bank where the computer stores data that it needs to retrieve quickly for immediate processing tasks. It is a volatile storage, which means the data is lost once the system is shut down.

47. **Correct option is (3).**
Explanation: The 'One Nation, One Permit' scheme focuses on ease of transport for interstate freight vehicles. It was proposed by the Ministry of Road Transport and Highways and simplifies the process by offering a single, unified permit system, replacing the need for multiple state-specific permits.

48. **Correct option is (2).**
Explanation: Brahmins administered the agrahara lands during the post-Gupta period. These were tax-free lands donated to brahmins for religious and educational purposes. They managed these lands and were responsible for administering them.

49. **Correct option is (4).**
Explanation: Surface area $= 4\pi r^2$

$$= 4 \times \frac{22}{7} \times 56^2$$

$$= 39{,}424 \text{ cm}^2$$

50. Correct option is (3).

Explanation:

Initial amount = 1200

Final amount = 2220

Profit = 2220 − 1200

= 1020

$$\text{Simple interest} = \frac{1200 \times 20 \times n}{100}$$

$$1020 = 12 \times 20n$$

$$n = \frac{51}{12} = 4.25$$

51. Correct option is (3).

Explanation: Gram Sabha is defined under Article 243(b) of the Indian Constitution. It is a body of registered voters in a village. It is a permanent body that looks after the governance and development of the village. A Gram Sabha must meet at least two to four times annually.

52. Correct option is (4).

Explanation: Acids are the primary contributor to the sour taste in foods like lemons, vinegar and yoghurt. Lemons are rich in citric acid. Yoghurt contains lactic acid produced due to the fermentation of milk. Vinegar has acetic acid and water.

53. Correct option is (2).

Explanation: Free legal aid is part of the directive principles of the state policy. It is mentioned under Article 39A of the Indian Constitution. It mandates the state to provide free legal aid to ensure that justice is not denied to any citizen due to economic or other disabilities. DPSPs are not legally enforceable, but they act as guiding principles of governance.

54. Correct option is (3).

Explanation: Kundu Sanjay Murthy assumed charge as the Comptroller and Auditor General (CAG) of India in November 2024. The CAG is responsible for conducting audits of the receipts and expenditures of the Central and state governments. It is India's Supreme Audit Institution established under Article 148 of the Indian Constitution. CAG heads the Indian Audit and Accounts Department (IA-AD). The President of India appoints the CAG.

55. Correct option is (2).

Explanation: The given pattern:

G	V	14
↓ +5	↓ −3	↓ −9
L	S	5

Similarly, code for,

M	G	0
↓+5	↓−3	↓
R	D	−9

56. Correct option is (4).

Explanation: Uracil is energetically cheaper to synthesise. RNA stands for ribonucleic acid. It is single-stranded and plays an important role in protein synthesis. RNA has ribose sugar and four complementary base pairs Adenine (A) with Uracil (U), and Guanine (G) with Cytosine (C). It can be represented as A = U and C ≡ G. The different types of RNA are messenger RNA (mRNA), ribosomal RNA (rRNA) and transfer RNA (tRNA).

57. Correct option is (1).

Explanation: Market it price = 1600

Let cost = x

$\therefore$ 1.25 x = 1600

x = 1280

Discount = 1600 × 0.16

= 256

Profit = 1600 – 1280 − 256

= 64

$$\text{Profit}(\%) = \frac{64 \times 100}{1280}$$

= 5%

58. Correct option is (4).

Explanation: According to the question, the family tree is as follows:

Original number is 8 5 6 9 1 4 2

Arranged number is 9 8 6 5 4 2 1

Only 6 remains unchanged.

59. Correct option is (2).

Explanation: According to the question, the family tree is as follows:

I (−) = J (+)

|

F(+) — G(−) = H(+)

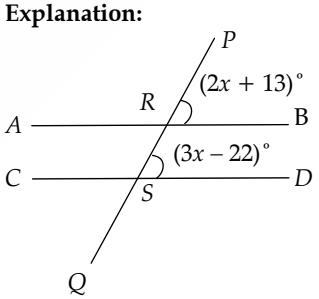
So, F is son's wife's brother.

60. Correct option is (1).

Explanation: A.K. Ramanujan's poetry collection 'The Striders' (1966) was highly acclaimed and received recognition for its contribution to Indian English poetry. He was awarded the Sahitya Academy Award posthumously in 1999 for 'The Collected Poems.'

61. Correct option is (3).

Explanation:



By corresponding angles:

$\angle BRP = \angle DSP$

$(2x + 13)^\circ = (3x - 22)^\circ$

$x = 35^\circ$

$\therefore \quad \angle DSP = 35^\circ \times 3 - 22^\circ = 83^\circ$

$\angle CSP = 180^\circ - 83^\circ = 97^\circ$

62. Correct option is (3).

Explanation: Airtel's 2Africa Pearls 2025 undersea cable landing system will bring over 100 tbps (terabits per second) of international capacity to India. Bharti Airtel has landed the 2Africa Pearls subsea cable in India, connecting the country directly to Africa, Europe and the Middle East, and strengthening its global subsea cable portfolio amidst surging data demand. The 2Africa Pearls system, led by a consortium including Meta, center3 and Vodafone Group, is poised to become the world's longest subsea cable at over 45,000 km once fully deployed. Airtel serves as the landing partner for the Indian leg of the cable.

63. Correct option is (2).

Explanation: According to the Economic Survey 2023–24, 13.5 crore Indians are estimated to have escaped multidimensional poverty between 2015–16 and 2019–21. The trend is driven by rural India, with the most significant improvements occurring in states like Bihar, Madhya Pradesh, Uttar Pradesh, Odisha and Rajasthan. Uttar Pradesh registered the most significant decline in the number of poor people, with 3.43 crore people escaping multidimensional poverty between 2015–16 and 2019–21.

64. Correct option is (1).

Explanation:

Highest number = 910

Lowest number = 204

Required value = 9 + 0

= 9

65. Correct option is (1).

Explanation: The given pattern:

R	W	K	A
↓ +2	↓ –2	↓ +1	↓ –1
T	U	L	Z

Similarly,

Z	O	O	W
↓ +2	↓ –2	↓ +1	↓ –1
B	M	P	V

66. Correct option is (4).

Explanation: Total distance = 753 km

$$\text{Covered distance} = 753 \times \frac{2}{3}$$

= 502 km

Remaining distance = 753 − 502

= 251 km

$$\text{Time remaining} = 12 \times \frac{1}{3} = 4 \text{ h}$$

$$\text{Speed} = \frac{251}{4}$$

= 62.75 km/h

67. Correct option is (2).

Explanation: According to the given statements, the possible arrangement is as follows:

6 N

5 M

4 O

3 Y

2 Z

1 P

So, Z lives on 2nd floor.

68. Correct option is (4).

Explanation:

Salary = 10000

Spending = 6000 + 3000

= 9000

Saving = 10000 − 9000

= 1000

Total saving = 1000 × 11

= ₹11,000

69. Correct option is (3).

Explanation: The Ctrl + H function in MS PowerPoint allows users to find whole words and replace them. It is helpful in targeted replacement.

70. Correct option is (1).

Explanation: 7995 is divisible by 41.

71. Correct option is (4).

Explanation:

Let length = l

breadth = b

Area = lb

Now,

$lb + 8 = (l + 5)(b - 7)$

$lb + 8 = lb + 5b - 7l - 35$

$5b - 7l = 43$ ...(1)

Now,

$(l - 5)(b + 8) = lb + 33$

$lb - 5b + 8l - 40 = lb + 33$

$8l - 5b = 73$ ...(2)

From Eqs (1) and (2), we get,

$8l - 5b + 5b - 7l = 73 + 43l = 116$

From Eq (1),

$l = 116$

$5b - 7 \times 116 = 43$

$5b = 855$

$b = 171$

Perimeter = 2 (l + b)

= 2 (171 + 116) = 574

72. Correct option is (4).

Explanation:

$$t_1 = \frac{370}{37} = 10 \text{ h}$$

$$t_2 = \frac{390}{5} = 78 \text{ h}$$

$$t_3 = \frac{720}{8} = 90 \text{ h}$$

$t_1 + t_2 + t_3 = 10 + 78 + 90$

= 178 h

Total distance = 370 + 390 + 720

= 1480 km

$$\text{Average speed} = \frac{1480}{178}$$
$$= \frac{740}{89}$$
$$= 8\frac{28}{89}$$

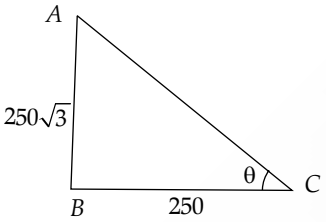
73. Correct option is (3).

Explanation: The second part of the Fifth Session (INC-5.2) of the Intergovernmental Negotiating Committee (INC) on plastic pollution is scheduled to take place in August 2025 at Palais des Nations in Geneva, Switzerland. The first part of the fifth session took place from 25 November to 1 December 2024 at the Busan Exhibition and Convention Center, Republic of Korea. INC will develop an international legally binding instrument on plastic pollution, including in the marine environment (INC-5.1).

74. Correct option is (2).

Explanation:

Using right angle triangle property:



Using right angle triangle property:

$$\tan\theta = \frac{250\sqrt{3}}{250}$$
$$\tan\theta = \sqrt{3}$$
$$\theta = 60^\circ$$

75. Correct option is (1).

Explanation: According to the statements, the possible arrangement is as follows:

Let cost = c

Loss = $c - 3338$

Profit = $3437 - c$

$\therefore 1.75(c - 3338) = (3437 - c)$

$1.75c + c = 3437 + 1.75 \times 3338$

$2.75c = 3437 + 5841.5$

$= 9278.5$

$c = 3,374$

50% profit = $3,374 \times 0.5$

= ₹1,687

Total price = 1,687 + 337

= ₹5,061

76. Correct option is (3).

Explanation: According to the statements, the possible arrangement is as follows:

J Q P O K I L

So, L sits extreme right end of the row.

77. Correct option is (4).

Explanation: $x^4 - 10x^2 + 22$

$= x^4 - 2 \times 5 \times x^2 + 25 - 3$

$= \left(x^2 - 5\right)^2 - (\sqrt{3})^2$

$= \left(x^2 - 5 + \sqrt{3}\right)\left(x^2 - 5 - \sqrt{3}\right)$

78. Correct option is (4).

Explanation: Opposite pair

Z – A, I – R, L – O

G – T, R – I, Z – A

Similarly,

X – C, M – N, S – H

79. Correct option is (3).

Explanation: Subsistence farming is characterised by traditional methods, family labour and minimal machinery use. In this farming, farmers grow for themselves and their family and do not intend to earn profits from the farm produce. This farming is done on a small scale, where the farmer has limited access to resources. High-end machinery is typically used in commercial farming.

80. Correct option is (3).

Explanation: Total students = 24 + 55 – 1

= 79 – 1 = 78

81. Correct option is (2).

Explanation: British author Samantha Harvey won the Booker Prize 2024 for her novel orbital. The novel revolves around one day in the lives of the astronauts aboard the International Space Station (ISS). The Booker Prize is given for the best work of fiction in English and was published either in the United Kingdom or Ireland.

82. Correct option is (1).

Explanation:

$$\text{In 1 min, pipe A can fill} = \frac{1}{18}$$

$$\text{In 1 min, pipe B can empty} = \frac{1}{27}$$

$$\text{In 6 min, pipe A can fill} = \frac{6}{18} = \frac{1}{3} \text{ part}$$

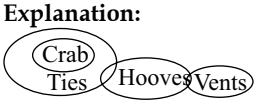
$$\therefore \quad \text{Remaining part} = \frac{2}{3}$$

$$\text{Effective rate} = \frac{1}{18} - \frac{1}{27}$$
$$= \frac{1}{54}$$

$$\text{Time required} = \frac{2}{3} \div \frac{1}{54}$$
$$= \frac{2 \times 54}{3} = 36 \text{ min}$$

83. Correct option is (3).

Explanation:



From the Venn diagram, neither conclusion (I) nor (II) follows.

84. Correct option is (2).

Explanation: Vindhya Hills are located in Central India and are present in Gujarat, Uttar Pradesh, Bihar and Chhattisgarh. They are not a direct surrounding feature of the Thar desert.

The Aravalli range forms the southeast border of the Thar desert. The Rann of Kutch borders ranges from the Thar desert to the south. The Indus river plain lies to the west of the Thar desert, extending into Pakistan.

85. Correct option is (3).

Explanation: Let the number be x.

2% of $x = 0.02x$

50% of $0.02x = 0.02x \times 0.5 = 0.01x$

$$\text{Final } (\%) = \frac{0.01x}{x} \times 100$$

$$= 1\%$$

86. Correct option is (1).

Explanation: The International Olympic Committee (IOC) awarded Abhinav Bindra with the Olympic Order in July 2024. He was presented the highest recognition for his 'outstanding services to the Olympic Movement'. The Olympic Order was established in 1975 and is presented to personalities for their outstanding services towards the Olympic Movement.

Abhinav Bindra is the first Indian to win a gold medal in an individual event at the Olympic Games. He achieved the feat in the 2008 Beijing Olympics, securing a gold medal in the men's 10 m air rifle event. After retiring from the sport post Rio 2016, Bindra has actively promoted sports through his foundation --'Abhinav Bindra Foundation'.

87. Correct option is (1).

Explanation: In December 2024, PM Modi made a historic visit to Kuwait, marking the first such visit by an Indian Prime Minister in 43 years. He was invited by His Highness the Amir of the State of Kuwait, Sheikh Meshal Al-Ahmad Al-Jaber Al-Sabah. The visit holds immense significance as it follows the last prime ministerial trip to Kuwait by the late Indira Gandhi in 1981. Former Vice President Hamid Ansari's visit in 2009 was the last high-level engagement from India to the Gulf nation.

During his visit, PM Modi was awarded the highest award of the State of Kuwait. The Order of Mubarak Al Kabeer'.

88. Correct option is (2).

Explanation: In Microsoft Word, dragging a selection moves the text. Holding Ctrl while dragging makes a copy of the selected content to a new location.

89. Correct option is (3).

Explanation: According to given condition we get,

$= 1568 \div 16 - 4 \times 5 + 22$

$= 98 + 2 = 100$

90. Correct option is (1).

Explanation: The Waqf (Amendment) Bill, 2025, amended the Waqf act, 1995. The Waqf act 2025 seeks to improve the administration and management of Waqf properties in India. It intends to redress the issues and challenges in regulating and managing Waqf properties. The act states that boards will include non-Muslims, but they will not form a majority. The majority of members will still be from the Muslim community. It requires the inclusion of 2 non-Muslims, excluding ex-officio members as members in the Central Waqf Council and State Waqf Boards, allowing for a maximum of 4 non-Muslim members in the Council and a maximum of 3 in the Waqf Board, with at least two members on the Central Waqf Council and state boards be non-Muslim. This change is meant to add expertise and promote transparency without undermining community representation.

91. Correct option is (1).

Explanation: According to the given condition, we get,

$= 52 \times 15 + 189 \div 9 - 117$

$= 780 + 21 - 117$

$= 684$

92. Correct option is (4).

Explanation: The given pattern:

P	M	B	::	Q	R	X
+2 ↓	+1 ↓	↓+2		↓ +2	↓ +1	↓ +2
R	N	D		S	S	Z

93. Correct option is (3).

Explanation: 801 – 1 = 800

800 – 3 = 797

797 – 5 = 792

792 – 7 = 785

So missing term = 785 – 9 = 776

94. Correct option is (3).

Explanation:

Number	1	3	5	7	8	4
Frequency	2	7	1	2	2	1

∴ Mode = 3

95. Correct option is (1).

Explanation: After defeating the Saka king, Chandragupta II married Kubernaga, a Naga princess. This marriage was a strategic alliance that helped consolidate Gupta power, especially in Central India, where the Nagas were influential. He defeated Rudrasimha III and annexed his kingdom to assume the title Vikramaditya.

96. Correct option is (4).

Explanation:

Mode = 89.7

Median = 32

2 mean = 3 median – mode

$= 3 \times 32 - 89.7$

2 mean = 6.3

∴ Mean = 3.15

97. Correct option is (4).

Explanation: 'A Time of Change' is the first poetry collection by Nissim Ezekiel, one of the most celebrated poets in Indian English Literature. The poetry was published in 1952. It marked the beginning of modern Indian English poetry,

blending Indian themes with Western literary forms and a personal voice. He was awarded the 'Sahitya Akademi Award' for 'Latter-Day Psalms'.'

98. Correct option is (1).

Explanation: 'Make in India' was launched on 25th September 2014, to facilitate investment, foster innovation, build best-in-class infrastructure, and make India a hub for manufacturing, design and innovation. Besides, it focused on increasing employment opportunities in India. The schemes are spread across 27 sectors. The Department for Promotion of Industry and Internal Trade (DPIIT) coordinates action plans for 15 manufacturing sectors, while the Department of Commerce coordinates 12 service sector plans.

99. Correct option is (1).

Explanation: As per the NFHS–5 (2019-21), 70% of households in India have access to improved sanitation facilities. This includes access to toilets that hygienically separate human excreta, such as flush toilets or pit latrines. The National Family Health Survey (NFHS) is an integrated survey of the Ministry of Health and Family Welfare (MoHFW) conducted at an interval of about three years. NFHS provides high-quality, reliable and comparable data on population dynamics and health indicators as well as data on emerging issues in health and family welfare and associated domains, so as to assist the policy-makers and programme implementing agencies in setting the benchmarks.

100. Correct option is (2).

Explanation: PM Gati Shakti initiative is also known as the National Master Plan for Multimodal Connectivity. It was launched on 13 October 2021, to provide multimodal connectivity infrastructure to various economic zones. The seven engines of this initiative are railways, roads, ports, waterways, airports, mass transport and logistics and infrastructures.