

1. Which of the following is/are true?

(i) $(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

(ii) $(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$

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

(1) Both (i) and (ii)

(2) (iii) only

(3) Both (i) and (iii)

(4) (i), (ii) and (iii)

2. A person has 2 parents, 4 grandparents, 8 great grandparents and so on. What is the number of his ancestors during the 5th generation preceding his own?

(1) 40

(2) 124

(3) 32

(4) 62

3. Match the items in List-I with the items in List-II and choose the correct answer.

	List-I		List-II
(a)	$\frac{1}{1+x}$	(i)	$1 - \frac{1}{2}x + \frac{3}{8}x^2 - \frac{5}{16}x^3 + \frac{35}{128}x^4 - \frac{63}{256}x^5 + \dots$
(b)	$\frac{1}{1-x}$	(ii)	$1 + \frac{1}{2}x + \frac{3}{8}x^2 + \frac{5}{16}x^3 + \frac{35}{128}x^4 + \frac{63}{256}x^5 + \dots$
(c)	$\frac{1}{\sqrt{1+x}}$	(iii)	$1 - x + x^2 - x^3 + x^4 - x^5 + \dots$
(d)	$\frac{1}{\sqrt{1-x}}$	(iv)	$1 + x + x^2 + x^3 + x^4 + \dots$

Codes:

(1) a - iv, b - iii, c - ii, d - i

(2) a - iii, b - iv, c - i, d - ii

(3) a - ii, b - i, c - iv, d - iii

(4) a - iv, b - iii, c - i, d - ii

SPACE FOR ROUGH WORK

4. Which of the following statement/statements is/are true?
- (i) The number of four digit numbers that can be formed by using 2, 3, 4, 5, 6 with repetition is 625
- (ii) The number of four digit numbers that can be formed by using 2, 3, 4, 5, 6 without repetition is 120
- (1) Only (i) (2) Only (ii)
- (3) Both (i) and (ii) (4) Neither (i) nor (ii)

5. If $A = \begin{bmatrix} 1 & 2 & 4 \\ -1 & 3 & 0 \\ 1 & 2 & 0 \end{bmatrix}$, then the value of determinant of A is
- (1) -10 (2) 10
- (3) 20 (4) -20

6. If $A = \begin{bmatrix} 1 & 2 \\ -1 & 3 \end{bmatrix}$, $B = \begin{bmatrix} -1 & 2 \\ 0 & 4 \end{bmatrix}$, then match the following and choose the correct answer.

List - I

(a) $A + B$

(b) $A - B$

(c) AB

(d) $2A + B'$

List - II

(i) $\begin{bmatrix} -1 & 10 \\ 1 & 10 \end{bmatrix}$

(ii) $\begin{bmatrix} 0 & 4 \\ -1 & 7 \end{bmatrix}$

(iii) $\begin{bmatrix} 1 & 4 \\ 0 & 10 \end{bmatrix}$

(iv) $\begin{bmatrix} 2 & 0 \\ -1 & -1 \end{bmatrix}$

Codes:

(1) a - ii, b - iv, c - i, d - iii

(3) a - iii, b - i, c - iv, d - ii

(2) a - iii, b - iv, c - i, d - ii

(4) a - ii, b - i, c - iv, d - iii

SPACE FOR ROUGH WORK

7. Let 'U' be universal set. If A and B are subsets of U, then match the following and choose the correct answer.

List - I

- (a) $A \cup A'$
 (b) $(A \cup B)'$
 (c) $(A \cap B)'$
 (d) $(A')'$

List - II

- (i) A
 (ii) $A' \cup B'$
 (iii) $A' \cap B'$
 (iv) $\cup$

Codes:

- (1) a - ii, b - i, c - iv, d - iii
 (2) a - ii, b - iii, c - iv, d - i
 (3) a - iii, b - iv, c - ii, d - i
 (4) a - iv, b - iii, c - ii, d - i

8. In a shop, the cost of 3 pens and 3 pencils is Rs. 9 and the cost of 4 pens and 6 pencils is Rs. 14. The cost of each pencil in Rs. is

- (1) 1
 (2) 2
 (3) 3
 (4) 4

9. The equation of the line passing through the points (1, 2) and (-1, 4) is

- (1) $x + y = 3$
 (2) $x + y = 4$
 (3) $2x + y = 4$
 (4) $x + 2y = 3$

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10. The midpoint of the line joining the points (2, 4) and (6, -2) is
- (1) (4, -1)
 - (2) (4, 1)
 - (3) (2, 4)
 - (4) (3, -1)
11. The point of intersection of the lines $3x + 2y = 6$ and $3x - 2y = -2$ is
- (1) $(2/3, 2)$
 - (2) $(2/3, -2)$
 - (3) $(-2/3, 2)$
 - (4) $(-2/3, -2)$
12. The centre of the circle $(x + 5)^2 + (y - 3)^2 = 36$ is
- (1) (5, 3)
 - (2) (-5, -3)
 - (3) (-5, 3)
 - (4) (5, -3)
13. The reflection of the point (4, -13) about the line $5x + y + 6 = 0$ is
- (1) (-1, -14)
 - (2) (-5, -14)
 - (3) (-1, -5)
 - (4) (-2, -7)

SPACE FOR ROUGH WORK

14. The equation of the parabola which is symmetric about the y-axis and passes through the point (2, -3) is

(1) $4x^2 = -3y$

(2) $4x^2 = 3y$

(3) $3x^2 = 4y$

(4) $3x^2 = -4y$

15. Consider the triangle with vertices (0, 0), (5, 0) and (2, 3). There is scaling of 3 towards x-axis and 3 towards y-axis. The new co-ordinates of the vertices of the triangle are

(1) (0, 0), (5, 0), (5, 6)

(2) (0, 0), (8, 0), (5, 6)

(3) (0, 0), (2, 0), (-1, 0)

(4) (0, 0), (8, 0), (-1, 0)

16. Match the postulates in List-I with the expressions in List-II.

List - I

(a) Identity law

(b) Null law

(c) Complement law

(d) Idempotent law

List - II

(i) $A + \bar{A} = 1$ and $A \cdot \bar{A} = 0$

(ii) $A + A = A$ and $A \cdot A = A$

(iii) $A + 0 = A$ and $A \cdot 1 = A$

(iv) $A + 1 = 1$ and $A \cdot 0 = 0$

Codes:

(1) a - iv, b - ii, c - i, d - iii

(3) a - iii, b - iv, c - i, d - ii

(2) a - iv, b - iii, c - i, d - ii

(4) a - iii, b - i, c - ii, d - iv

17. The sum of the binary numbers 10110.10 and 11010.01 is

(1) 48

(2) 48.5

(3) 48.75

(4) 48.25

SPACE FOR ROUGH WORK

A1

18. The Boolean function $AB + AC$ is equivalent to
- (1) $AB + AC + BC$
 - (2) $A'BC' + ABC' + A'BC$
 - (3) $ABC + A'BC + B'C'$
 - (4) $ABC + ABC' + AB'C$
19. The Boolean expressions $(AB)' = A' + B'$ and $(A + B)' = A'B'$ represent
- (1) Absorption law
 - (2) Distributive law
 - (3) De Morgan's law
 - (4) Idempotent law
20. Match List-I with List-II.

List - I

(a) $\sin(\pi/3)$

(b) $\sin(\pi/4)$

(c) $\sin(\pi/6)$

(d) $\sin(\pi/2)$

List - II

(i) $\frac{1}{\sqrt{2}}$

(ii) $\frac{1}{2}$

(iii) $\frac{\sqrt{3}}{2}$

(iv) 1

Codes:

- (1) a - iii, b - i, c - ii, d - iv
- (2) a - iv, b - ii, c - i, d - iii
- (3) a - iii, b - ii, c - i, d - iv
- (4) a - iv, b - ii, c - iii, d - i

SPACE FOR ROUGH WORK

21. The general solution of $2\cos\theta - \sqrt{3} = 0$ is

(1) $\theta = n\pi + (-1)^n \frac{\pi}{6}, n \in \mathbb{I}$

(2) $\theta = 2n\pi \pm \frac{\pi}{6}, n \in \mathbb{I}$

(3) $\theta = 2n\pi \pm \frac{\pi}{3}, n \in \mathbb{I}$

(4) $\theta = n\pi + (-1)^n \frac{\pi}{3}, n \in \mathbb{I}$

22. In a right angled isosceles triangle $\triangle ABC$, right angle at C, if side $a = 2$, then sides b and c are respectively

(1) $2\sqrt{2}, 2$

(2) $\sqrt{2}, 2$

(3) $2, \sqrt{2}$

(4) $2, 2\sqrt{2}$

23. $\tan^{-1}(1) + \cos^{-1}\left(\frac{-1}{2}\right) + \sin^{-1}\left(\frac{-1}{2}\right) =$

(1) $\pi/4$

(2) $\pi/2$

(3) $3\pi/4$

(4) $3\pi/2$

SPACE FOR ROUGH WORK

24. Two dice are thrown and the sum of the numbers which come up on the dice is noted. Among the following events

- A: The sum is even.
B: The sum is a multiple of 3.
C: The sum is less than 4.
D: The sum is greater than 11.

Which pair of events are mutually exclusive?

- (1) A and B
(2) A and C
(3) C and D
(4) B and D
25. Two students 'A' and 'B' appeared for an exam. The probability that 'A' will qualify the examination is 0.05 and that 'B' will qualify the examination is 0.10. The probability that 'A' and 'B' will qualify the exam is 0.02. Find the probability that both 'A' and 'B' will not qualify in the examination.

- (1) 0.87
(2) 0.98
(3) 1
(4) 0.11

SPACE FOR ROUGH WORK

26. The probability of selecting a man from a crowd containing 20 men and 33 women is

(1) $\frac{20}{33}$

(2) $\frac{33}{20}$

(3) $\frac{20}{53}$

(4) $\frac{33}{53}$

27. Three cards are drawn successively without replacement from a pack of 52 well shuffled cards. What is the probability that first two cards are kings and the third card drawn is an ace?

(1) $\frac{4}{52}$

(2) $\frac{3}{51}$

(3) $\frac{4}{50}$

(4) $\frac{2}{5525}$

28. A man is known to speak truth 3 out of 4 times. He throws a die and reports that it is a six. Find the probability that it is actually six.

(1) $\frac{1}{8}$

(2) $\frac{2}{8}$

(3) $\frac{3}{8}$

(4) $\frac{1}{2}$

SPACE FOR ROUGH WORK

A1

29. The variance of 25 observations is 6. If each observation is multiplied by 3, then the new variance of the resulting observations is
- (1) 56
(2) 50
(3) 54
(4) 36
30. A committee of two persons is selected from two men and two women. What is the probability that the committee will have one man?
- (1) $1/3$
(2) $2/3$
(3) 1
(4) $4/3$
31. Select the correct statement(s) from below given statements.
- (i) Cache memory is an extremely fast and small memory between CPU and main memory.
- (ii) Main memory is an extremely fast and larger memory between CPU and cache memory.
- (1) Only (ii) is correct
(2) Only (i) is correct
(3) Both (i) and (ii) are correct
(4) Both (i) and (ii) are wrong

SPACE FOR ROUGH WORK

32. Arrange the below given operators based on their priority.

(a) $<, >, <=, >=$

(b) $\&\&$

(c) $!$

(d) $*, /, \%$

(1) (d), (c), (b), (a)

(2) (b), (c), (a), (d)

(3) (a), (b), (c), (d)

(4) (c), (d), (a), (b)

33. Primary classification of programming languages are

(a) Machine language

(b) Assembly language

(c) High level language

(d) Pseudocode and Algorithms

(1) Only (c) and (d) are correct

(2) Only (a) and (b) are correct

(3) Only (a), (b) and (c) are correct

(4) Only (a) and (d) are correct

34. Match the following with respect to connections between processor and memory.

List - I
(Registers)

List - II
(Usage)

(a) IR

(i) Keeps track of execution of a program

(b) MAR

(ii) Holds the instruction that is currently being executed

(c) MDR

(iii) Data to be written into or read out of the addressed location

(d) PC

(iv) Holds the address of the location to be accessed

Codes:

(1) a - iii, b - iv, c - ii, d - i

(2) a - i, b - ii, c - iv, d - iii

(3) a - ii, b - iv, c - iii, d - i

(4) a - iv, b - ii, c - i, d - iii

SPACE FOR ROUGH WORK

A1

35. In $b = 66.6/a + 12 * n$; which operation will be performed first?
- (1) $66.6/a$
 - (2) $12 * n$
 - (3) $a + 12$
 - (4) Depends upon the compiler
36. Consider the following instruction.
ADD R1, R2, R3
What is the meaning of the above instruction?
- (1) Add the contents of registers R1 and R2 and place the sum in R3
 - (2) Add the contents of registers R1, R2 and R3 and place the sum in accumulator
 - (3) Add the contents of registers R2 and R3 and place the sum in R1
 - (4) Instruction is invalid
37. What is the meaning of 16×8 organizations with respect to memory chip?
- (1) 8 words of 16 bits each
 - (2) $16 \text{ bits} \times 8 \text{ bits}$
 - (3) 16 words of 8 bits each
 - (4) 16 words of 8 bytes each
38. Reservation clerks for Airlines and Hotels check availability for given request and make reservation. These type of users are categorised into _____ with respect to database applications.
- (1) Casual end users
 - (2) Parametric end users
 - (3) Sophisticated end users
 - (4) Standalone users

SPACE FOR ROUGH WORK

39. The _____ data model which makes it possible to organize data in a collection of records with fixed structure.

(1) Relational Data Model

(2) Network Data Model

(3) Hierarchical Data Model

(4) Object Data Model

40. _____ language is used to define the logical, external and physical schemas and access authorizations.

(1) Data Manipulation Language (DML)

(2) Data Definition Language (DDL)

(3) Logical Definition Language (LDL)

(4) Data-Driven Language (DDL)

41. Arrange the given list of memories as per the size.

(a) Cache memory

(b) Registers

(c) Secondary memory

(d) Primary memory

(1) (b), (a), (d), (c)

(2) (b), (a), (c), (d)

(3) (a), (b), (c), (d)

(4) (d), (b), (a), (c)

SPACE FOR ROUGH WORK

a b c d

42. The control unit of a computer is designed to go through an instruction cycle that is divided into following phases.
- (a) Fetch the instruction from memory
 - (b) Decode the instruction
 - (c) Execute the instruction
- (1) Only (b) and (c) are correct
- (2) Only (c) is correct
- (3) Only (a) is correct
- (4) (a), (b) and (c) are correct
43. Full form of WAMP is _____ with respect to web applications.
- (1) Windows, Apache, MySQL and PHP
 - ~~(2) Word, Adobe, MySQL and PHP~~
 - ~~(3) Windows, Apache, Mainstream and Program~~
 - ~~(4) Windows, Adobe, MySQL and PHP~~
44. Which of the following are valid hexadecimal numbers?
- (i) 1A3F
 - (ii) 29GF ✓
 - (iii) FF12
 - (iv) 7BHE
- (1) (i), (ii) and (iv)
- (2) (i), (ii) and (iii)
- (3) (i) and (iii) ✓
- (4) (i), (iii) and (iv)

SPACE FOR ROUGH WORK

45. The decimal number 25_{10} is represented in binary as _____

(1) 1 1 0 0 1

(2) 1 0 1 0 1

(3) 1 1 1 0 0

(4) 1 0 0 1 1

46. Arrange the following steps in correct order to binary:

b (i) Repeat division until becomes 0

a (ii) Divide the number by 2

d (iii) Write the remainder

c (iv) Write the remainder in reverse order

(1) (i) $\rightarrow$ (ii) $\rightarrow$ (iii) $\rightarrow$ (iv)

(2) (ii) $\rightarrow$ (iii) $\rightarrow$ (i) $\rightarrow$ (iv)

(3) (iii) $\rightarrow$ (i) $\rightarrow$ (iv) $\rightarrow$ (ii)

(4) (iv) $\rightarrow$ (ii) $\rightarrow$ (iii) $\rightarrow$ (i)

47. Match the Characters in List-I with their correct ASCII Property in List-II.

List - I

(a) 'A'

(b) 'a'

(c) '0' (Zero)

(d) ' ' (Space)

List - II

(i) ASCII 32 (Decimal)

(ii) ASCII 48 (Decimal)

(iii) ASCII 65 (Decimal)

(iv) ASCII differ from (i) by 32

Codes:

(1) a - i, b - iii, c - iv, d - ii

(2) a - i, b - iv, c - iii, d - ii

(3) a - iii, b - iv, c - i, d - ii

(4) a - iii, b - iv, c - ii, d - i

SPACE FOR ROUGH WORK

48. A floating point number typically consists of
- (i) Sign bit
 - (ii) Parity bit
 - (iii) Mantissa (Significand)
 - (iv) Exponent
- (1) (i), (ii) and (iv)
- (2) (i), (iii) and (iv)
- (3) (ii), (iii) and (iv)
- (4) (i), (ii) and (iii)
49. Arrange the steps to find two's complement of a binary number.
- (i) Take 1's complement
 - (ii) Write the binary number
 - (iii) Add 1
 - (iv) Obtain final result
- (1) (iv) $\rightarrow$ (i) $\rightarrow$ (iii) $\rightarrow$ (ii)
- (2) (ii) $\rightarrow$ (iii) $\rightarrow$ (i) $\rightarrow$ (iv)
- (3) (ii) $\rightarrow$ (i) $\rightarrow$ (iii) $\rightarrow$ (iv)
- (4) (i) $\rightarrow$ (ii) $\rightarrow$ (iii) $\rightarrow$ (iv)
50. The result of $101_2 \times 10_2$ is _____.
- (1) 1010_2
- (2) 1000_2
- (3) 1110_2
- (4) 1100_2

SPACE FOR ROUGH WORK

51. Match the binary operations in List-I with correct results in List-II.

- List - I**
- (a) $1 + 1$
 - (b) $10 - 1$
 - (c) 1×0
 - (d) $11 \div 1$

- List - II**
- (i) 1
 - (ii) 10
 - (iii) 11
 - (iv) 0

Codes:

(1) a - ii, b - i, c - iv, d - iii

(2) a - iii, b - ii, c - iv, d - i

(3) a - ii, b - iii, c - i, d - iv

(4) a - i, b - iv, c - ii, d - iii

52. Which scheduling algorithm works on the principles of time slices?

(1) FCFS

(2) Round Robin

(3) SJF

(4) Priority Scheduling

53. Which of the following are the characteristics of Real Time Operating Systems (RTOS)?

(i) Deterministic response

(ii) High latency allowed

(iii) Strict timing constraints

(iv) Used in embedded systems

(1) (i) and (iii) only

(2) (i), (iii) and (iv) only

(3) (ii) and (iv) only

(4) (i), (ii) and (iii) only

SPACE FOR ROUGH WORK

54. Arrange the steps in process state transition.

(i) Running

(ii) Ready

(iii) New

(iv) Waiting

(1) (i) $\rightarrow$ (ii) $\rightarrow$ (iii) $\rightarrow$ (iv)

(2) (iii) $\rightarrow$ (ii) $\rightarrow$ (i) $\rightarrow$ (iv)

(3) (iv) $\rightarrow$ (i) $\rightarrow$ (ii) $\rightarrow$ (iii)

(4) (ii) $\rightarrow$ (i) $\rightarrow$ (iii) $\rightarrow$ (iv)

55. Match the operating systems in List-I with their correct characteristics in List-II.

List - I

List - II

(a) Batch OS

(i) Immediate response required

(b) Real Time OS

(ii) No user interaction

(c) Time Sharing OS

(iii) Multiuser share CPU

(d) Distributed OS

(iv) Multiple systems connected

Codes:

(1) a - ii, b - i, c - iii, d - iv

(2) a - ii, b - i, c - iv, d - iii

(3) a - iii, b - iv, c - i, d - ii

(4) a - iii, b - i, c - iv, d - ii

56. In a class exam, Ramya's average mark was 90 per paper. If she had obtained 4 more marks in Maths paper and 20 more marks in Physics paper, then her average per paper would have been 94. How many papers were there in the exam?

(1) 6

(2) 8

(3) 9

(4) 7

SPACE FOR ROUGH WORK

57. In a two digit number, the digit in the unit's place is equal to the square of the digit in ten's place and the difference between the numbers obtained by interchanging the digits is 54. What is 40% of the original number?

(1) 23.4
 (2) 15.6
 (3) 37.2
 (4) 39

58. A set of letters and numbers are arranged in certain order where some of them are missing.

1 _ 7g _ c8 _ 2b

Choose the correct order of appearing in the missing places.

(1) 3 h a 2
 (2) a h 2 3
 (3) a 3 h 2
 (4) 2 3 h a

59. In a certain code language, SHORE is written as PELOB, then match the following original letters in List-I that are coded in List-II.

List-I

List-II

(a) B
 (b) Z
 (c) Q
 (d) J

(i) W
 (ii) G
 (iii) N
 (iv) Y

Codes:

(1) a - iv, b - i, c - ii, d - iii
 (2) a - iv, b - i, c - iii, d - ii
 (3) a - iii, b - i, c - ii, d - iv
 (4) a - ii, b - iii, c - i, d - iv

SPACE FOR ROUGH WORK

A1

60. No reptiles can fly. All birds can fly

Which of the following must be true?

(1) No birds are reptiles

(2) All reptiles can fly

(3) All flying creatures are birds

(4) Some birds are reptiles

61. Which one of the following number is completely divisible by 45?

(1) 181566

(2) 331145

(3) 242865

(4) 2023550

62. A class of 30 students comprises of boys who can play cricket, hockey and/or football.

3 boys play only cricket, 3 boys play only hockey and 2 play only football. 4 boys could play all 3 games, while 11 could play football and cricket and 10 boys could play football and hockey. How many boys played cricket and hockey but not football?

(1) 1

(2) 3

(3) 4

(4) 5

SPACE FOR ROUGH WORK

63. Five groups of letters are given. One of these groups is different from the other four. Find the odd one.

YDEUZ, ASHBR, OZPEQ, AXCMF, HLXEF

- (1) YDEUZ
- (2) ASHBR
- (3) OZPEQ
- (4) AXCMF

64. If 15th August, 2023 was on Tuesday, then on which day of the week would the Independence Day be celebrated in the year 2040?

- (1) Tuesday
- (2) Wednesday
- (3) Thursday
- (4) Friday

65. Consider the following equations I and II.

$$I : \sqrt{1\frac{9}{16}} = 1\frac{1}{4}$$

$$II : 3\sqrt{2744} = 2 \times 7\sqrt{7}$$

- (1) I and II are correct
- (2) I is incorrect, II is correct
- (3) I is correct, II is incorrect
- (4) I and II are incorrect

SPACE FOR ROUGH WORK

A1

66. If $A \star B$ means A and B are of the same age

$A - B$ means B is younger than A.

Then Himani $\star$ Mahesh - Jay means _____.

(1) Himani is younger than Jay

(2) Mahesh is younger than Jay

(3) Jay is the youngest

(4) Jay is the oldest

67. If sum of 2 numbers is 10 and the difference of their squares is 20, then these numbers are _____

(1) 8 and 2

(2) 6 and 4

(3) 7 and 3

(4) 5 and 5

68. A figure consists of a triangle attached to a square such that the triangle points upward. If the figure is rotated 90° clockwise, then where will be the triangle point?

(1) Left

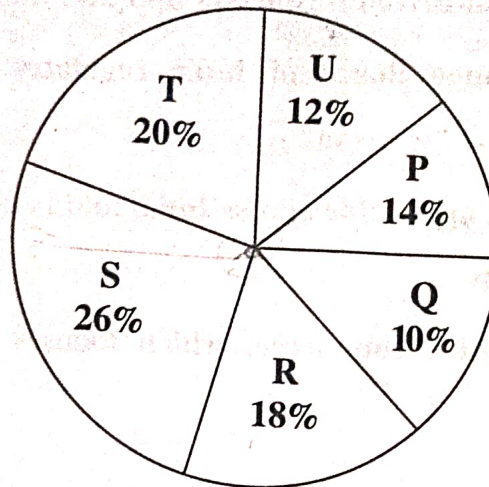
(2) Right

(3) Downward

(4) Upward

SPACE FOR ROUGH WORK

69. Distribution of total number of cellular phones sold by six stores in December, 2025 is given in the following pie chart.



What is the central angle corresponding to the total number of cellular phones sold by S?

- (1) 99.2°
 (2) 93.6°
 (3) 105.6°
 (4) 97.4°
70. A researcher is conducting a statistical study on the students academic performance and life style habits. To ensure the study is scientifically valid, the most appropriate sequence for carrying out data collection, analysis and the following tasks is
- (P) Apply statistical methods to summarise and test relationships in the data
 (Q) Design research objects variable sampling plan and data collection instrument
 (R) Interpret findings and draw conclusions
 (S) Collect responses from selected participants
 (T) Class, code and organise the collected raw data
- (1) $S \rightarrow T \rightarrow Q \rightarrow P \rightarrow R$
 (2) $S \rightarrow T \rightarrow Q \rightarrow R \rightarrow P$
 (3) $Q \rightarrow S \rightarrow T \rightarrow P \rightarrow R$
 (4) $T \rightarrow Q \rightarrow S \rightarrow P \rightarrow R$

SPACE FOR ROUGH WORK

A1

71. Which of the following statements are correct?

- (a) Startups are innovation-driven businesses and aim at scalability
- (b) Securities and Exchange Board of India regulates stock markets and protects investors
- (c) GST is an indirect tax applicable across India and is collected only once at the final stage of the transaction
- (d) Blinkit operates in quick commerce, which focuses on fast delivery using dark stores.

(1) (a), (b) and (c)

(2) (a), (b) and (d)

(3) (b), (c) and (d)

(4) (c) and (d) only

72. With reference to health indicators, consider the following statements.

- (a) Infant Mortality Rate (IMR) is the number of deaths of infants under one year per 1000 live births
 - (b) Maternal Mortality Ratio (MMR) is expressed per 1000 live births
 - (c) Life expectancy indicates the average number of years a newborn is expected to live.
- Which of the statements given above is/are correct?

(1) (a) and (c)

(2) (a) and (b)

(3) (b) and (c)

(4) (a), (b) and (c)

SPACE FOR ROUGH WORK

MTA26614

73. Consider the following statements and select the correct answer using the codes given below.

- (i) Commercial paper is issued by corporations
- (ii) Certificate deposit is issued by RBI
- (iii) Treasury Bills are zero-coupon instruments
- (iv) RBI can directly lend to the public

- (1) (i), (ii), (iii) and (iv) are correct
- (2) (i), (ii) and (iii) are correct
- (3) (i) and (iii) are correct
- (4) Only (i) is correct

74. Match the following heads of various financial institutions in List-I with their respective names in List-II and choose the correct answer.

List - I

- (a) Governor of RBI
- (b) Chairperson of SEBI
- (c) Chairperson of IRDA
- (d) CEO of NITI Aayog

List - II

- (i) Ajay Seth
- (ii) Nidhi Chhibber
- (iii) Sanjay Malhotra
- (iv) Tuhin Kanta Panday

Codes:

- (1) a - iii, b - iv, c - ii, d - i
- (3) a - iii, b - iv, c - i, d - ii

- (2) a - iv, b - iii, c - i, d - ii
- (4) a - iv, b - iii, c - ii, d - i

75. An economy experiences sustained growth in industrial output accomplished by a gradual shift of labour from agriculture to manufacturing and rising per-capita income. This situation most appropriately indicates

- (1) Cyclical fluctuations in economic activity
- (2) Structural transformation of the economy
- (3) Short-term increase in aggregate demand
- (4) Expansion of informal sector employment

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A1

76. Match the following.

List-I (Transportation mode)

- (a) Rail transport
- (b) Road transport
- (c) Air transport
- (d) Water transport

List-II (Characteristics)

- (i) High speed and high operating cost
- (ii) High flexibility and last mile connectivity
- (iii) Economies of scale in bulk freight movement
- (iv) Lowest cost for intercontinental bulk trade

Codes:

- (1) a - i, b - iv, c - ii, d - iii ✗
- (2) a - iv, b - ii, c - i, d - iii ✗
- (3) a - ii, b - i, c - iii, d - iv
- (4) a - iii, b - ii, c - i, d - iv

77. Match the List-I (concepts) with their List-II (explanation) on entrepreneurial finance and select the right option.

List - I (Concept)

- (a) Opportunity recognition
- (b) Bootstrapping
- (c) Venture capital
- (d) Angel investors

List - II (Explanation)

- (i) Arranging funds for business
- (ii) Identifying viable business ideas
- (iii) Self financing
- (iv) Early stage external funding

Codes:

- (1) a - ii, b - iii, c - iv, d - i
- (2) a - ii, b - iii, c - i, d - iv
- (3) a - iii, b - ii, c - iv, d - i ✓
- (4) a - ii, b - i, c - iv, d - iii ✗

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- SPACE FOR ROUGH WORK

A1

81. In which of the two separate fields had *Linus Pauling* won the Nobel Prize?

- (i) Peace
- (ii) Physics
- (iii) Chemistry
- (iv) Economics Sciences

(1) (i) and (iv)

(2) (ii) and (iv)

(3) (i) and (iii)

(4) (iii) and (iv)

82. The process of conversion of solid directly into vapour is called

(1) Condensation

(2) Sublimation

(3) Evaporation

(4) Fusion

83. Consider the following statements and select the correct answer using the codes given below:

(I) Primary market deals with Initial Public Offer (IPO)

(II) Money market is a market for long-term transaction

(III) SEBI was established in the year 1992

(IV) Capital market is a market for short-term transaction

(1) (I), (II), (III) and (IV) are correct

(2) (I), (II) and (III) are correct

(3) (I) and (II) are correct

(4) (I) and (III) are correct

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84. Match e-governance project with their year of implementation.

List - I (Project Name)	List - II (Year)
(a) Nanna Bhoomi	(i) 2006
(b) e-kshana	(ii) 2011
(c) Kaveri	(iii) 2017
(d) Shakti scheme	(iv) 2023

Codes:

(1) a - i, b - ii, c - iii, d - iv

(2) a - ii, b - iii, c - i, d - iv

(3) a - iii, b - i, c - ii, d - iv

(4) a - iv, b - iii, c - i, d - ii

85. Consider the following statements.

Statement-I: India's public sector healthcare system largely focuses on curative care with limited preventive, promotive and rehabilitative care

Statement-II: Under India's decentralized approach to healthcare delivery, the states are primarily responsible for organising health services

Which of the following is correct in respect of the above statements?

(1) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

(2) Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I

(3) Statement-I is correct but Statement-II is incorrect

(4) Statement-I is incorrect but Statement-II is correct

86. When the balance between the material and non-material culture is disrupted by rapid social change, the material culture is left behind. This situation is called

(1) Left culture

(2) Far-culture

(3) Cultural lag

(4) Taken culture

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A1

87. Vandana Shiva and Flavia Agnes are linked with these gender issues.

- (a) Gender and land rights
- (b) Ecofeminism
- (c) Woman and work
- (d) Gender and law

(1) (a) and (b)

(2) (b) and (d)

(3) (c) and (d)

(4) (a) and (d)

88. Which of the following is NOT a function of business correspondence?

- (i) Providing contact and reference
- (ii) Creating a cordial business atmosphere
- (iii) Personal communication
- (iv) Promote sales promotion

(1) (i) and (ii)

(2) (i) and (iii)

(3) (ii) and (iii)

(4) (i), (ii) and (iv).

89. Which is NOT an advantage of writing Business letter?

- (1) It has wide reach
- (2) It can be standalone medium
- (3) It is not cost effective
- (4) It can be reproduced and repeated

SPACE FOR ROUGH WORK

90. Which of the following are the characteristics of mantle?

- (a) Located between crust and core
- (b) Mostly solid rock
- (c) Extends to about 2900 km depth
- (d) Entirely molten

(1) (a) and (b)

(2) (a), (b) and (c)

(3) (a) and (c)

(4) (b) and (d)

91. Match the following List-I (verb forms) with List-II (non-finites):

List – I (Verb form)

List – II (Non-finites)

(a) Present participle

(i) Verb form used as a noun without "to"

(b) Infinitive

(ii) Verb form ending in -ing used as an adjective or for continuous tense

(c) Gerund

(iii) Base form of a verb often preceded by "to"

(d) Perfect participle

(iv) Having + past participle showing completed action before another action

Codes:

(1) a – iv, b – ii, c – iii, d – i

(2) a – iv, b – i, c – ii, d – iii

(3) a – ii, b – iii, c – i, d – iv

(4) a – ii, b – i, c – iii, d – iv

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92. Match the following clauses with their functions.

List - I (Clauses)

- (a) Noun clause
- (b) Adverbial clause
- (c) Relative clause
- (d) Conditional clause

List - II (Functions)

- (i) Modifies a noun and usually begins with *who, which, that*
- (ii) Functions as a noun within a sentence
- (iii) Modifies a verb, adjective or adverb (time, reason, condition, etc)
- (iv) Expresses a condition often introduced by '*if*' or '*unless*'

Codes:

(1) a - ii, b - iii, c - i, d - iv

(2) a - iv, b - ii, c - iii, d - i

(3) a - iii, b - iv, c - ii, d - i

(4) a - ii, b - iv, c - i, d - iii

93. Choose the correct word to complete the sentence:

His speech was so _____ that everyone lost interest halfway through.

(1) Engaging

(2) Monotonous

(3) Lively

(4) Exciting

SPACE FOR ROUGH WORK

★ Read the following passage and answer the questions (94 – 96):

Technology has transformed the way people communicate. In the past, letters took days or even weeks to reach their destination. Today, messages can be sent instantly through e-mails and mobile applications. While this has made communication faster and more convenient, it has also reduced face-to-face interactions. Many people now prefer texting over meeting in person, which may affect social relationships in the long run.

94. How were messages sent in the past?

- (1) Through mobile apps
- (2) Through emails
- (3) Through letters
- (4) Through video calls

95. What is one advantage of modern communication?

- (1) It is slower
- (2) It is more expensive
- (3) It is instant
- (4) It requires travel

96. What is one disadvantage of modern communication mentioned in the passage?

- (1) Increased travel
- (2) Reduced face-to-face interaction
- (3) Higher costs
- (4) Lack of technology

SPACE FOR ROUGH WORK

97. OBFUSCATE nearly means

(a) Illuminate

(b) Confound

X (c) Explicate

(d) Muddle

(1) (a) and (b) are correct

(2) (b) and (c) are correct

✓ (3) (b) and (d) are correct

(4) (a) and (c) are correct

98. Choose the antonyms of LOQUACIOUS.

(a) Garrulous

(b) Voluble

(c) Reticent

(d) Taciturn

(1) (a) and (b) are correct

(2) (b) and (c) are correct

(3) (c) and (d) are correct

(4) (d) and (a) are correct

99. Choose the correct meaning of the phrase "a blessing in disguise".

(1) Hidden danger ✓

(2) A very obvious problem

(3) A happy occasion

(4) Something that seems bad but turns out to be good

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100. Arrange the sentences in the correct order.

(A) The teacher appreciated her efforts

(B) She worked hard to complete the project on time

(C) Meena was assigned a project in the class.

(D) She presented it confidently before everyone

(1) C B D A

(2) B C D A

(3) C D B A

(4) B D C A

BCDA



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