

Roll No. ....

Question Booklet Number

O. M. R. Serial No.

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**M. A./M. Sc. (Second Semester)**  
**(NEP) EXAMINATION, 2025-26**  
**MATHEMATICS**  
**(Operations Research)**

Paper Code							
B	0	3	0	8	0	3	T

Questions Booklet Series
<b>A</b>

Time : 1:30 Hours ]

[ Maximum Marks : 75

**Instructions to the Examinee :**

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.

**परीक्षार्थियों के लिए निर्देश :**

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page)

(शेष निर्देश अन्तिम पृष्ठ पर)

***(Only for Rough Work)***

1. Operations Research approach is :
  - (A) Objective
  - (B) An essence of reality
  - (C) Intuitive
  - (D) Multi-disciplinary
2. Operations Research achieved recognition as a subject of academic study in the year :
  - (A) 1950
  - (B) 1953
  - (C) 1957
  - (D) 1959
3. In India, Operation Research came into existence in the year :
  - (A) 1940
  - (B) 1947
  - (C) 1949
  - (D) 1950
4. The application of O.R. methods in national planning and survey, O.R. society of India was formed in :
  - (A) 1949
  - (B) 1953
  - (C) 1957
  - (D) 1959
5. A physical model is an example of :
  - (A) Analogue model
  - (B) Symbolic model
  - (C) Verbal model
  - (D) None of the above
6. The statement “OR is a scientific approach to problem solving for executive management” was given by :
  - (A) T.L. Saafy
  - (B) Miller and Starr
  - (C) H. M. Wagner
  - (D) P. M. Morse
7. Operations Research techniques are not applicable in the following situation :
  - (A) Sufficient input data is available for formulating the problem
  - (B) Resources available are unlimited
  - (C) Scientific methods, techniques and tools may be applied
  - (D) Objectives can be defined for maximization or minimization
8. ‘Break-even models’ are the example of :
  - (A) Analogue models
  - (B) Probabilistic models
  - (C) Deterministic models
  - (D) Iconic models
9. OR is said to be :
  - (A) Art as well as Science
  - (B) Only Art
  - (C) Only Science
  - (D) None of the above

10. The process of modifying on OR model to observe the effect upon its output is called :
- (A) Cost/benefit analysis  
 (B) Model validation  
 (C) Input validation  
 (D) Sensitivity analysis
11. A subset  $S \subset \mathbf{R}^n$  is convex, iff :
- (A)  $x_1, x_2 \in S \Rightarrow x_1 + x_2 \notin S$   
 (B)  $x_1, x_2 \in S \Rightarrow \lambda x_1 + (1 - \lambda) x_2 \in S,$   
 $0 \leq \lambda \leq 1$   
 (C)  $x_1, x_2 \in S \Rightarrow \lambda x_1 + (1 - \lambda) x_2 \notin S,$   
 $0 \leq \lambda \leq 1$   
 (D)  $x_1, x_2 \in S \Rightarrow \lambda x_1 + (1 - \lambda) x_2 \in S,$   
 $0 < \lambda < 1$
12. The intersection of any finite number of convex set :
- (A) is may or may not be a convex set  
 (B) is not a convex set  
 (C) is a convex set  
 (D) None of the above
13. The model, which gives physical or visual representation of the problem, is :
- (A) Static models  
 (B) Symbolic models  
 (C) Iconic models  
 (D) Qualitative models
14. If S and T are two convex sets then SUT is :
- (A) Convex set  
 (B) May or may not be convex set  
 (C) Non-convex set  
 (D) None of the above
15. Every extreme point of a convex set is :
- (A) Boundary point of the set  
 (B) Boundary value of the set  
 (C) Both (A) and (B)  
 (D) None of the above
16. The extreme points of the set  $\{(x, y) : |x| \leq 2, |y| \leq 2\}$  are :
- (A) (0, 0) (2, 2) (0, 2) (2, 0)  
 (B) (1, 1) (-1, -1) (-1, 1) (1, -1)  
 (C) (0, 0) (1, 1) (1, -1) (-1, 1)  
 (D) (2, 2) (-2, -2) (-2, 2) (2, -2)
17. Assignment problem is basically a :
- (A) Maximization problem  
 (B) Transportation problem  
 (C) Primal problem  
 (D) Minimization problem
18. Assignment problem is a special case of :
- (A) Integer programming problem  
 (B) Dual problem  
 (C) Transportation problem  
 (D) Spanning free problem

19. Profit maximization problem can be solved by Hungarian method by multiplying each element of pay-off matrix by :
- (A) 1  
 (B) - 1  
 (C) 0  
 (D) - 2
20. In making assignment, which of the following should be preferred ?
- (A) Only that row which has single zero  
 (B) Only that column which has single zero  
 (C) Only a row/column that has single zero  
 (D) Only a row/column having more than one zero
21. The minimum number of lines covering all zeros in a reduced cost matrix of order  $n$  can be :
- (A) At the least  $n$   
 (B) At the most  $n$   
 (C)  $(n - 1)$   
 (D)  $(n + 1)$
22. The method used for solving an assignment problem is called :
- (A) MODI method  
 (B) u-v method  
 (C) Vogel's approximation method  
 (D) Hungarian method
23. All costs in the dummy row or dummy column added to convert an unbalanced assignment problem to balanced assignment problem is taken equal to :
- (A) - 1  
 (B) 1  
 (C)  $\infty$   
 (D) 0
24. For a salesman, who has to visit  $n$  cities, following are the ways of his tour plan :
- (A)  $(n - 1)!$   
 (B)  $n!$   
 (C)  $(n + 1)!$   
 (D)  $(n - 2)!$
25. MODI method is used in a Transportation problem for testing :
- (A) IBFS  
 (B) BFS  
 (C) FS  
 (D) Optimality
26. In an assignment problem if  $X_{ij}$  denotes the quantity to be assigned from  $j^{th}$  source to  $j^{th}$  sink, then  $X_{ij}$  is :
- (A) 1  
 (B) 0  
 (C) 0 or 1  
 (D) None of the above

27. One disadvantage of using North-West corner rule to find initial solution to the transportation problem is that :
- (A) It leads to a degenerate initial solution
- (B) It does not take into account the cost of transportation
- (C) It is complicated to use
- (D) All of the above
28. The solution in a transportation problem of  $m \times n$  matrix is said to be degenerate if it has :
- (A) Fewer than  $(m + n - 1)$  allocations
- (B) Exactly  $(m + n - 1)$  allocations
- (C) More than  $(m + n - 1)$  allocations
- (D)  $(m \times n)$  allocations
29. The dummy source or destination in a transportation problem is added to :
- (A) Ensure that total cost does not exceed a limit
- (B) Prevent solution from becoming degenerate
- (C) Satisfy rim conditions
- (D) None of the above
30. In order for a transportation matrix which has six rows and four columns not to be degenerate, how much must be the number of allocated cells in the matrix ?
- (A) 9
- (B) 10
- (C) 24
- (D) None of the above
31. A transportation problem is said to be unbalanced, if :
- (A)  $\sum a_i = \sum b_j$
- (B)  $\sum a_i < \sum b_j$
- (C)  $\sum a_i > \sum b_j$
- (D) Either (B) or (C)
32. Vogel's approximation method is also known as :
- (A) Lowest cost entry method
- (B) Unit-cost penalty method
- (C) Row minima method
- (D) Matrix minima method
33. If we add a constant  $a_i$  to every element of  $i^{th}$  row then the optimal assignment plane will :
- (A) Increase by  $n + a_i$
- (B) Increase by  $n a_i$
- (C) Increase by  $a_i$
- (D) Remain the same

34. In an assignment problem if  $x_{ij}$  denotes the quantity to be assigned from  $i^{\text{th}}$  source to  $j^{\text{th}}$  sink, then  $\sum_{j=1}^n x_{ij} =$
- (A) 1  
 (B) 0  
 (C) Either 0 or 1  
 (D) None of the above
35. In Vogel' approximation method, we select the row or column for which the penalty is the :
- (A) Smallest  
 (B) Largest  
 (C) Zero  
 (D) One
36. In North-West corner method the allocations are made :
- (A) Starting from the right hand side top corner  
 (B) Starting from the lowest cost cell  
 (C) Starting from the left hand side top corner  
 (D) Starting from largest penalty row with lowest cost cell
37. Any solution to a linear programming problem which satisfies the non-negativity condition is called a/an :
- (A) Bounded solution  
 (B) Optimal solution  
 (C) Basic solution  
 (D) Feasible solution
38. The variables corresponding to the column of an identity matrix are known as :
- (A) Surplus variable  
 (B) Slack variable  
 (C) Basic variable  
 (D) Artificial variable
39. Given a system of  $m$  simultaneous linear equations in  $n$  unknown ( $m < n$ ), the number of basic variables will be :
- (A)  $m$   
 (B)  $n$   
 (C)  $m + n$   
 (D)  $n - m$
40. The role of artificial variables in simplex method is :
- (A) To start phases of simplex method  
 (B) To aid in finding initial basic feasible solution  
 (C) To find shadow prices from the final simplex table  
 (D) None of the above
41. A necessary and sufficient condition of a basic feasible solution to a minimization LPP to be an optimum is that (for all  $j$ ) :
- (A)  $Z_j - C_j = 0$   
 (B)  $Z_j - C_j \geq 0$   
 (C)  $Z_j - C_j \leq 0$   
 (D)  $Z_j - C_j > 0$  or  $Z_j - C_j < 0$

42. For maximization LPP, the objective function coefficient for an artificial variable is :
- (A) Zero  
(B) 1  
(C) + M  
(D) - M
43. If an optimal solution is degenerate, then :
- (A) The solution is infeasible  
(B) There are alternative optimal solutions  
(C) The solution is of no use to the decision maker  
(D) None of the above
44. If for a given solution, a slack variable is equal to zero, then :
- (A) The solution is infeasible  
(B) The solution is optimal  
(C) The entire amount of resource with the constraint in which the slack variable appears has been consumed  
(D) All of the above
45. In an LPP having  $n$  constraints in  $m$  variables ( $n < m$ ), the maximum number of basic feasible solutions is :
- (A)  ${}^m C_n$   
(B)  ${}^n C_m$   
(C)  ${}^m C_{m+n}$   
(D) None of the above
46. The dual of the dual of a given primal is :
- (A) Second dual  
(B) Dual itself  
(C) Primal itself  
(D) Exist only if solution is feasible
47. If the primal LPP is  $\text{Max } Z = Cx$ ,  $Ax \leq b, x \geq 0$ , then its dual is given by :
- (A)  $\text{Max } Z_D = b'w$ , st.  $A'w \leq C, w \geq 0$   
(B)  $\text{Min } Z_D = b'w$ , st.  $A'w \leq C, w \geq 0$   
(C)  $\text{Min } Z_D = b'w$ , st.  $A'w \geq C, w \geq 0$   
(D)  $\text{Max } Z_D = b'w$ , st.  $A'w \geq C, w \geq 0$
48. If the  $j^{\text{th}}$  constraints in primal is strict equation, then  $i^{\text{th}}$  variable in the dual will be :
- (A) Negative  
(B) Positive  
(C) Zero  
(D) Unrestricted
49. Big-M method was given by :
- (A) Dantzig, Order and Wolf  
(B) Abraham Charnes  
(C) G. H. Hardy  
(D) Kuhn-Tucker
50. If a primal problem has no solution then its dual has :
- (A) No solution  
(B) Unbounded solution  
(C) Either no solution or an unbounded solution  
(D) Neither no solution nor an unbounded solution

51. The graphical solution of the LPP lies in :
- Only first quadrant
  - Only second quadrant
  - Both first and second quadrant
  - Neither first nor second quadrant
52. The graphical method can be applied to solve the LPP of types :
- Two or three variables
  - Only two variables
  - Only three variables
  - $n$ -variables
53. In a two-person, zero sum game, the resulting gain can be easily be represented in the form of a matrix, called the :
- Cost matrix
  - Symmetric matrix
  - Effectiveness matrix
  - Pay-off matrix
54. The game with saddle points are :
- Stochastic in nature
  - Deterministic in nature
  - Probabilistic in nature
  - None of the above
55. In context of game theory, the minimax value  $\bar{v}$ , maximin value  $\underline{v}$  and the value of game  $v$  are related as :
- $\bar{v} \leq v \leq \underline{v}$
  - $\underline{v} \leq v \leq \bar{v}$
  - $\underline{v} \leq \bar{v} \leq v$
  - $\bar{v} \leq \underline{v} \leq v$
56. Which of the following game is strictly determinable ?
- $\begin{bmatrix} 0 & 2 \\ -1 & 4 \end{bmatrix}$
  - $\begin{bmatrix} 5 & 0 \\ 0 & 2 \end{bmatrix}$
  - $\begin{bmatrix} 8 & 2 \\ 3 & 4 \end{bmatrix}$
  - All of the above
57. The value of the game whose pay-off matrix is  $\begin{bmatrix} 5 & 1 \\ 5 & 5 \end{bmatrix}$ :
- 17/5
  - 11/3
  - 4
  - 5
58. Graphical method should be used to determine rule of the game when size of pay-off matrix is :
- $2 \times n$
  - $2 \times 2$
  - $3 \times 3$
  - $m \times n$
59. Consider the game whose pay-off matrix  $A = \begin{bmatrix} 0 & 2 \\ -1 & 4 \end{bmatrix}$ , then :
- Game is fair but not strictly determinable
  - Game is fair and strictly determinable
  - Game is not fair and strictly determinable
  - None of the above

60. Dominated rows or columns may be deleted to :
- (A) Enlarge the size of pay-off matrix
- (B) Saddle point
- (C) Reduce the size of pay-off matrix
- (D) None of the above

61. For the following pay-off matrix of a game the saddle point will exist at the position (2, 2) :

		B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>
(Player-A)	A <sub>1</sub>	2	5	5
	A <sub>2</sub>	10	7	q
	A <sub>3</sub>	4	p	6

only when :

- (A)  $p = 6, q = 7$
- (B)  $p = 7, q = 6$
- (C)  $p \geq 7, q \leq 7$
- (D)  $p \leq 7, q \geq 7$
62. If  $A = [a_{ij}]$  is the pay-off matrix, then saddle point exists, when :
- (A)  $\min_j \max_i a_{ij} = \max_i \min_j a_{ij}$
- (B)  $\min_j \max_i a_{ij} \geq \max_i \min_j a_{ij}$
- (C)  $\min_j \max_i a_{ij} \leq \max_i \min_j a_{ij}$
- (D) None of the above

63. In Network Analysis, the word 'PERT' is :
- (A) Perfect Evaluation and Review Techniques
- (B) Project Evaluation and Report Techniques
- (C) Project Evaluation and Review Technique
- (D) None of the above

64. In critical path analysis, the CPM is :
- (A) Probabilistic in nature
- (B) Deterministic in nature
- (C) Dynamic in nature
- (D) Event oriented technique

65. The most occurring duration of the activity time distribution of the time which most often is required, if the activity is replaced any times is known as :
- (A) Optimistic time ( $t_o$ )
- (B) Most likely time ( $t_m$ )
- (C) Pessimistic time ( $t_p$ )
- (D) None of the above

66. CPM/PERT techniques were developed first in :
- (A) India
- (B) United Kingdom
- (C) United States of America
- (D) China

67. How many types of activity floats are in general ?
- (A) 1  
(B) 3  
(C) 4  
(D) 6
68. The objective of network analysis is to :
- (A) Minimize total project duration  
(B) Minimize total project cost  
(C) Minimize product delays, interruption and conflicts  
(D) All of the above
69. An activity which does not consume either any resources and time is called :
- (A) Successor activity  
(B) Dummy activity  
(C) Predecessor activity  
(D) None of the above
70. Which one of the following is not a type of activity float ?
- (A) Free float  
(B) Independent float  
(C) Total float  
(D) Event float
71. The critical path of a network analysis is :
- (A) The longest time path  
(B) The shortest time path  
(C) Any path goes from the starting node to the completion node  
(D) A combination of all paths
72. In PERT, the expected time ( $t_e$ ) is found by using the formula :
- (A)  $t_e = \frac{4t_c + t_m + t_p}{6}$   
(B)  $t_e = \frac{t_o + t_m + 4t_p}{6}$   
(C)  $t_e = \frac{t_o + 4t_m + t_p}{6}$   
(D)  $t_e = \frac{t_o + 4t_m + 2t_p}{6}$
73. When a positive quantity C is divided into five parts, the maximum value of their product is :
- (A)  $5\left(\frac{C}{5}\right)$   
(B)  $C^5$   
(C)  $5C$   
(D)  $\left(\frac{C}{5}\right)^5$
74. The technique of dynamic programming was developed by :
- (A) George Dantzig  
(B) J.V. Neumann  
(C) Richard Bellman  
(D) Kuhn-Tucker
75. Dynamic programming deals with the :
- (A) Time independent decision making problems  
(B) Single stage decision making problems  
(C) Multistage decision making problems  
(D) All of the above

76. A spanning tree contains :
- (A) All vertices
  - (B) At least one vertex
  - (C) At least three vertices
  - (D) None of the above
77. The return in dynamic programming problem ..... depends on.
- (A) Stage
  - (B) States
  - (C) Alternatives
  - (D) None of the above
78. Using dynamic programming technique, find the minimum value of  $y_1^2 + y_2^2 + y_3^2$  and  $y_1 + y_2 + y_3 \geq 15$ ,  $y_1, y_2, y_3 \geq 0$ .
- (A) 25
  - (B) 65
  - (C) 70
  - (D) 75
79. Which of the following is not correct ?
- (A) Dynamic programming can be dealt with non-linear constraints.
  - (B) Dynamic programming problem can be divided into a sequence of smaller sub-problems called stages of the original problem.
  - (C) Dynamic programming cannot be dealt with non-linear constraints.
  - (D) All of the above
80. The number of edges of a spanning tree of a graph G having  $(n - 1)$  vertices is :
- (A)  $n$
  - (B)  $(n - 1)$
  - (C)  $\frac{n}{2}$
  - (D)  $(n - 2)$
81. The shortest path of a graph without weight :
- (A) is always unique
  - (B) is not unique
  - (C) consists of two paths
  - (D) None of the above
82. The general non-linear programming problem with inequality constraints :
- (A) is usually solved by complete enumeration method
  - (B) Can be solved by Lagrange's method
  - (C) Can be solved by using Kuhn-Tucker conditions
  - (D) None of the above
83. Which one of the following objective functions is non-linear ?
- (A)  $\text{Max. } Z = 3x_1 + 5x_2 - 100$
  - (B)  $\text{Max. } Z = x_1 + 4x_2 + x_1 \cdot x_2$
  - (C)  $\text{Max. } Z = (x_1 - 1) + (x_2 - 1)$
  - (D) None of the above
84. An approximation situation of a non-linear programming problem is obtained by using :
- (A) Quadratic programming
  - (B) Separable programming
  - (C) Dynamic programming
  - (D) All of the above

85. Which of the following methods of solving quadratic programming problem is based on modified simplex method ?
- (A) Walfe's method  
 (B) Beal's method  
 (C) Frank-Wolfe method  
 (D) Fletcher's method
86. The quadratic form  $x^T Q x$  is said to be negative semi-definite, if :
- (A)  $x^T Q x > 0$   
 (B)  $x^T Q x < 0$   
 (C)  $x^T Q x \geq 0$   
 (D)  $x^T Q x \leq 0$
87. The relative maximum of the function  $f(x_1, x_2) = x_1^3 - x_2^3 - 3x_1 + 12x_2 + 100$  is of the point :
- (A)  $x_1 = -1, x_2 = -2$   
 (B)  $x_1 = -1, x_2 = 2$   
 (C)  $x_1 = 1, x_2 = 2$   
 (D)  $x_1 = 1, x_2 = -2$
88. A sequencing problem involving six jobs and three machines requires evaluation of :
- (A)  $(6! + 6! + 6!)$  sequences  
 (B)  $(6 \times 6 \times 6)$  sequences  
 (C)  $(6!)^3$  sequences  
 (D)  $(6 + 6 + 6)$  sequences
89. The time between starting the first job and completing the last job is called :
- (A) Idle time  
 (B) Total elapsed time  
 (C) Total processing time  
 (D) Total completion time
90. In sequencing problem, Idle time on a machine is defined as :
- (A) The time required by a job on each machine  
 (B) Time interval between starting the first job and completing the last job  
 (C) The time for which a machine does not have a job to process  
 (D) None of the above
91. In a sequencing problem, the order is defined for :
- (A) Jobs  
 (B) Machines  
 (C) Either jobs or machines  
 (D) None of the above
92. The minimum processing time on machines  $M_1$  and  $M_2$  are related as :
- (A)  $\text{Min. } t_{1j} \geq \text{Max. } t_{2j}$   
 (B)  $\text{Min. } t_{1j} \leq \text{Max. } t_{2j}$   
 (C)  $\text{Min. } t_{1j} = \text{Max. } t_{2j}$   
 (D) None of the above
93. Common errors in drawing network diagram is/are :
- (1) Event slack  
 (2) Cycling  
 (3) Dongling  
 (4) Redundancy
- Codes :**
- (A) Only (1), (2), (3)  
 (B) Only (2), (3), (4)  
 (C) Only (2), (3)  
 (D) Only (3), (4)

94. Quadratic programming is concerned with the NLPP of optimizing the quadratic objective function subject to :
- (A) Non-linear equality constraints
  - (B) Non-linear inequality constraints
  - (C) Linear equality constraints
  - (D) Linear inequality constraints
95. Which method is commonly used to solve quadratic programming problem ?
- (A) Kuhn-Tucker method
  - (B) MODI method
  - (C) Simplex method
  - (D) Hungarian method
96. In a mixed integer programming problem :
- (A) Different objective functions are mixed together
  - (B) All of the decision variables require integer solutions
  - (C) Only few of the decision variables require integer solutions
  - (D) None of the above
97. Branch and bound method divides the feasible solution space into smaller parts by :
- (A) Bounding
  - (B) Branching
  - (C) Enumerating
  - (D) All of the above

98. The value of the game of the pay-off matrix :

		B	
		I	II
A	I	4	0
	II	0	8

is :

- (A) 0
  - (B)  $\frac{1}{2}$
  - (C)  $\frac{8}{3}$
  - (D)  $\frac{3}{8}$
99. Which of the following does not belong to a project planning technique ?
- (A) CPM
  - (B) PERT
  - (C) Gantt Chart
  - (D) IRR
100. While solving IPP any non-integer variable in the solution is picked-up to :
- (A) Obtain the cut constraints
  - (B) Leave the solution
  - (C) Enter the solution
  - (D) None of the above

***(Only for Rough Work)***

4. Four alternative answers are mentioned for each question as—A, B, C & D in the booklet. The candidate has to choose the correct answer and mark the same in the OMR Answer-Sheet as per the direction :

**Example :**

**Question :**

- Q. 1 (A) ● (C) (D)  
 Q. 2 (A) (B) ● (D)  
 Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
6. All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
8. After the completion of the examination candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
9. There will be no negative marking.
10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
11. To bring and use of log-book, calculator, pager and cellular phone in examination hall is prohibited.
12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

**Impt. :** On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर—A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छाँटना है। उत्तर को OMR आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

**उदाहरण :**

**प्रश्न :**

- प्रश्न 1 (A) ● (C) (D)  
 प्रश्न 2 (A) (B) ● (D)  
 प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उन्हें निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
6. सभी उत्तर केवल ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
7. ओ. एम. आर. उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
9. निगेटिव मार्किंग नहीं है।
10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

**महत्वपूर्ण :** प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्न-पुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।