

**SECTION II****[TO BE ATTACHED TO THE MAIN ANSWER-BOOK]****M.COM DEGREE (CSS) PRIVATE EXAMINATION, NOVEMBER 2022**

AE6D8C53

**DO NOT WRITE YOUR REGISTER NUMBER OR NAME ANYWHERE IN****SECTION II OF THE QUESTION PAPER****CM010104MCQ - MANAGEMENT OPTIMISATION TECHNIQUES**

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Answer **all** questions.

All questions carry equal weight

Put a tick mark [✓] against the correct answer

1. Which of the following is a method for improving an initial solution in a transportation problem?  
(a) Northwest-corner      (b) Intuitive lowest-cost  
(c) Stepping-stone      (d) None of these
2. In the network, one activity may connect any ..... Nodes.  
(a) One      (b) Two  
(c) Any number of      (d) None of these
3. LPP requires the existence of.....  
(a) Linear Constraints      (b) Alternative Course of action  
(c) Both      (d) None of these
4. '≤' constraint changes to ..... type on Dual problem.  
(a)  $\leq$       (b)  $\geq$   
(c) =      (d) None of these
5. .... is concerned with the determination of the most economic replacement policy.  
(a) Probabilistic programming      (b) Linear programming  
(c) Replacement theory      (d) None of these
6. In Vogel's approximation method, ..... is calculated for allocation.  
(a) Penalty      (b) Opportunity Cost  
(c) All the Above      (d) None of these

7. In .....assignment problem, the number of rows is equal to the number of columns.
- (a) Unbalanced      (b) Balanced
- (c) Degenerate      (d) None of these
8. In graphical method of LPP, the optimal value for Z can be obtained from .....
- (a) Corner points of feasible region      (b) Corner points of solution region
- (c) Both (a) and (b)      (d) None of these
9. An activity is critical if it's ..... float is zero.
- (a) Total      (b) Free
- (c) Independent      (d) None of these
10. When all the players of the game follow their optimal strategies, then the expected pay off of the game is called .....
- (a) Gain of the game      (b) Gain of the game
- (c) Pay of the game      (d) None of these
11. Operations Research models in which values of all variables and all possible outcomes are known with certainty are called .....models.
- (a) Symbolic      (b) Deterministic
- (c) Probabilistic      (d) None of these
12. An activity in a network diagram is said to be a ..... if the delay in its start will further delay the project completion time.
- (a) Critical activity      (b) Dummy activity
- (c) Null activity      (d) None of these
13. In LPP, unbounded solution means.....
- (a) Infeasible      (b) Infinite
- (c) Degenerate      (d) None of these
14. Which of the following methods is used to verify the optimality of the current solution of the transportation problem?
- (a) Least cost method      (b) Vogel's approximation method
- (c) Modified distribution method      (d) None of these
15. The solution to a transportation problem with 'm' rows (supplies) & 'n' columns (destination) is feasible, if number of positive allocations are .....
- (a)  $m+n$       (b)  $m+n-1$

- (c)  $m+n+1$       (d) None of these
16. The occurrence of degeneracy while solving a transportation problem means that .....
- (a) Total supply equals total demand      (b) The solution so obtained is not feasible
- (c) The few allocations become negative      (d) None of these
17. The transportation method assumes that .....
- (a) There are no economies of scale if large quantities are shipped from one source to one destination.      (b) The number of occupied squares in any solution must be equal to the number of rows in the table plus the number of columns in the table plus 1.
- (c) There is only one optimal solution for each problem.      (d) None of these
18. Firm that considers the potential reactions of its competitors when it makes a decision.....
- (a) is referred to as a price leader      (b) is engaged in strategic behavior
- (c) is engaged in collusion      (d) None of these
19. .... gives a solution nearer to the optimum solution.
- (a) Vogel's Approximation method      (b) Lowest Cost Entry Method
- (c) North West Corner Method      (d) None of these
20. Hungarian Method is used to solve .....
- (a) A transportation problem      (b) A travelling salesman problem
- (c) A LP problem      (d) None of these

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No. of MCQ's Attempted :

Weight Scored :

(To be entered by the examiner)

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WITH THE MAIN ANSWER BOOK**