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MMPO–001

**MASTER OF BUSINESS
ADMINISTRATION (MBA)**

Term-End Examination

December, 2024

MMPO–001 : OPERATIONS RESEARCH

Time : 3 Hours

Maximum Marks : 100

Weightage : 70%

Note : (i) Attempt any **five** questions.

(ii) All questions carry equal marks.

1. What is Operations Research ? Discuss the importance of operations research in decision-making process.
2. What do you mean by the simplex method ? Discuss the computational steps of the simplex method for solving linear programming problems.

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3. The assignment cost of assigning any one operator to any one machine is given below :

		Operators			
		I	II	III	IV
Machines	A	10	5	13	15
	B	3	9	18	3
	C	10	7	3	2
	D	5	11	9	7

Find the optimal assignment.

4. “Goal programming appears to be the most appropriate, flexible and powerful quantitative technique for complex decision problems involving conflicting objectives.” Discuss this statement.
5. What is dynamic programming ? Discuss the applications of dynamic programming in decision-making.
6. “Game theory provides a systematic quantitative approach for analysing competitive situations in which the competitors make use of logical processes and techniques in order to determine an optimal strategy for winning.” Discuss this statement.

7. Write short notes on any *four* of the following :

- (i) Two-person zero-sum game
- (ii) Principle of dominance
- (iii) North-West Corner's Rule
- (iv) Excel Applications in O.R.
- (v) Applications of Integer Programming

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