Total No. of Questions - 10]

(2062)

# 9625

## M.B.A. Examination

## MANAGEMENT SCIENCE-II

Paper-202 (Semester-II)

Time: Three Hours] [Maximum Marks: | Regular: 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note: Attempt *five* questions in all, selecting *one* question from each unit. All questions carry equal marks.

## UNIT-I

- 1. What is meant by Functional Analysis? Explain the role of Functional Analysis in Business.
- 2. Explain the process of Operational Research Methodology for solving problems of business.

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#### UNIT-II

- 3. Explain O.R. Methods Operational Research Model Formulation and various types of model.
- 4. What is the meaning of Operational Research? Discuss the objectives of Operational Research and its scope in scientific business decision-making.

### **UNIT-III**

5. Solve the following LP graphically:

Minimize 
$$Z = 20X_1 + 10X_2$$
  
Subject to :  $X_1 + 2X_2 \le 40$ ,  $3X_1 + X_2 \ge 30$ ,  $4X_1 + 3X_2 \ge 60$ ,  $X_1$  and  $X_2 \ge 0$ .

6. Define Graphic Method to solve Linear Programming Problems in respect of maximization and minimization.

#### UNIT-IV

7. Consider the following transportation problem and Determine initial basic feasible solution by VAM

	$D_1$	D <sub>2</sub>	$D_3$	D <sub>4</sub>	Availability
<b>O</b> <sub>1</sub>	5	8	3	6	30
O <sub>2</sub>	4	5	7	4	50
O <sub>3</sub>	6	2	4	6	20
Requirement	30	40	20	10	

8. What are the types of methods of Transportation problem? Which is best suitable method in solving transportation problem?

## UNIT-V

- **9.** Explain the application, assumption and limitation of game theory.
- 10. (i) Explain saddle point and Two-person Zero-sum games.
  - (ii) Solve the following game:

		B's Strategy		
		B <sub>1</sub>	$B_2$	
A's Strategy	A <sub>1</sub>	28	0	
	A <sub>2</sub>	2	12	
	A <sub>3</sub>	4	7	