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Roll No.	Total No. of Pages : 02
Total No. of Questions : 07	
B.Com. (2013 to 2017 Batch)	(Sem.–3)
OPERATION RESEAR	RCH
Subject Code : BCOP-3	304
Paper ID : [B1127]	

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains SIX questions carrying TEN marks each and students have 2. to attempt any FOUR questions.

SECTION-A

Q1). Answer briefly :

- a. Scope of Operations Research
- b. Duality
- c. Degeneracy
- ankercom d. Unbalanced assignment problem
- e. Pure and Mixed strategy games
- f. Assumptions in sequencing problems
- g. Function of inventory management
- h. Critical path
- i. Slack and float
- j. Equal gains method



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SECTION-B

Q2). Solve the following LPP graphically :

Minimize $Z=5x_1 + 8x_2$

Subject to the constraints :

$$x_1 \le 4;$$
 $x_2 \ge 2;$ $x_1 + x_2 = 5;$ $x_1, x_2 \ge 0$

Q3). Solve the following Transportation problem.

	M_1	M ₂	M_3	M ₄	M ₅	Supply
F ₁	2	5	1	4	3	10
F ₂	6	1	3	4	2	11
F ₃	3	5	1	3	4	13
Demand	6	8	7	9	8	

Q4). Solve the following Assignment problem.

	Α	B	С	D
Р	11	13	15	10
Q	14	16	10	12
R	18	16	14	13
S	12	11	9	15

Q5). Solve the following game theory problem.

	. • .	3			
		Player B			
	A		B_1	B ₂	B ₃
	er	A ₁	3	-2	4
2	Player	A_2	-1	4	2
	Ρ	A ₃	2	2	6

- Q6). What is meant by Economic Ordered Quantity? Discuss its utility in Inventory Control.
- Q7). Discuss the concept of network analysis. Explain the PERT & CPM models and their utility.