M. B. A. (Sem. I) (CBCS) Examination

December – 2019

Quantitative Techniques in Management

Time : **3** Hours] [Total Marks : **70**

Instruction : All questions carry equal marks.

1 What is Operations Research (QT) ? Explain with the help of suitable examples how it will be helpful in taking business decisions.

OR

1 Explain the various types of solutions that can be obtained for a model.

2 Draw a network diagram from the following details and calculate the earliest start (ES), earliest finish (EF), latest start (LS) and latest finish (LF) times of each activities

Activity	1-2	1-3	2-6	3-4	3-5	4-6	5-6	5-7	6-7
Duration	5	7	9	8	5	7	6	20	11

OR

2 What are the major comparative characteristics of the PERT model and CPM Model ? What are their limitations , if any ? Discuss.

3 What is the Importance of model building in Quantitative Techniques ? Explain Physical and Symbolic models with the help of suitable examples.

OR

3 What is a game theory? Discuss its importance and major limitations in taking business decisions.

4 Explain and illustrate the following principles of decision making :

(a) Laplace, (b) Maximin, (c) Maximax, (d) Savage, (e) Expectation.

OR

4 Solve the Following transportation problem and obtain the Total Cost

Factory	Warehouses				Availability
	1	2	3	4	
1	7	7	4	11	$
2	5	8	10	8	9
3	9	14	5	12	9
4	5	7	6	7	11
5	13	11	15	14	5
6	9	15	6	13	7
Demand	11	12	10	16	

5 Write Short notes on (Any Two) :

(a) Consumer penal survey

(b) Moving Averages

(c) MODI Method.

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