Unit III

5. Explain the following :

(a) Explain the process of testing of hypothesis.

(b) Difference between sample study and population study.

(c) Explain difference between large and small sample.

(d) Differentiate between type 1 and type 11 error.

6. (a) A group of 5 patients treated with medicine A weights : 42, 39, 48, 60 and 36 kg. In the light of the above data, discuss the suggestion that mean weight of the population is 50 kg. Test at 5% level of significance. (Given the table value of t for 4 d.f. at 5% level is 2.776).

(b) What do you mean by sampling error in and explain its importance in decision making ?

BB-662

M.C.R.M./M.Tech.

EXAMINATION, Dec. 2018

(Second Semester)

(Re-appear Only)

(CONSTRUCTION AND REAL ESTATE MANAGEMENT)

MCRM606

Advanced Mathematical Methods in Economics and MGT. Science

Time : 3 *Hours*]   [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) What do you mean by Problem ? Explain the importance of a problems in area of MCRM.

(b) What do you mean by system ? Explain its process and importance in present competitive scenario.

2. Define result and explain the importance of interpretation of result in area of MCRM.

Unit II

3. (a) Two product P and Q are processed on three machines X, Y and Z. The processing time per unit, machine availability and profit per unit are as under :

Machine	Processing Time (Hours) P Product	Processing Time (Hours) Q Product	Availability (Hours)
X	2	3	800
Y	3	2	800
Z	1	1	600
Profit Per Unit	Rs. 10	Rs. 12	

Formulate on appropriate Linear Programming Model for this problem and solve it by simplex method.

(b) Explain the utility of dynamic analysis in the field of MCRM in current scenario.

4. Explain the following :

(a) Explain the importance of market equilibrium

(b) What do you mean by Leontief input-output models ?

(c) Explain the importance of lifetime utility maximization in current scenario in India.

Unit IV

7. (a) A newspaper boy has the following probabilities of selling a magazine :

No. of copies sold	Probability
10	0.10
11	0.15
12	0.20
13	0.25
14	0.30

Cost of copy is Rs. 20 sales price is Rs. 25. He cannot return unsold copies (make dead stock). How many copies should he order ?

(b) What risk analysis and explain its importance in current scenerio in India ?

8. Write short notes on the following :

(a) EOQ and VED techniques of inventory control.

(b) Explain the application of transportation techniques in the field of MCRM.

(c) Define optimization modeling.

(d) Explain the importance of game theory.