MTE-401

M. Sc. (Fourth Semester) Examination, 2020

(CBCS Course)

MATHEMATICS

(Operation Research)

Maximum Marks : 60

Note: Attempt all questions. All questions carry equal marks.

1. What is operation research? Give any three definitions of operation research and explain.

2. What are the difference between PERT and CPM?

3. Draw the Network diagram and determine minimum total time and corresponding cost.

Activity	Normal		Crush	
	Time	Cost	Time	Cost
1 – 2	9	640	6	700
1 – 3	8	500	5	575
1 – 4	15	400	10	550
2 – 4	5	100	3	120
3 – 4	10	200	6	260
4 – 5	2	100	1	140

4. Neon lights in an industrial park are replaced at of the real as 100 unit per day. The Physical plant orders the neon lights periodically. It costs ₹100 to initiate a Purchase order. A neon light kept in storage is estimated to cost about Re. 02 per day. The lead time between placing and reciving an order is 12 days. Determine the optimum inventory policy for ordering the neon lights.

5. What is Queuing system and define elements of Queing system.