R18 Regulation *Subject code:* B142PC4

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

M.B.A II Semester Regular/Supplementary Examinations, October 2020

Quantitative Analysis for Business Decisions

Maximum Marks: 70 Date:23.11.2020 Duration: 3 hours

Part-A

All the following questions carry equal marks **(5x2M=10 Marks)**

1 Define Operation Research.

2 State the mathematical formulation of LPP.

3 What are the managerial applications of assignment Model?

4 Define different time estimates in PERT.

5 Explain two person Zero sum game.

Part-B

Answer Any FIVE questions. **(12M X 5=60Marks)**

6 Explain the steps involved in problem solving and decision making. (12M)

7 Elucidate the opportunities and shortcomings of OR. (12M)

8 Define LPP and Explain the limitations of LPP. (12M)

9 Find the IBFS using NWC and LCM Method. (12M)

	WAREHOUSES					
PLANTS	**W1**	**W2**	**W3**	**W4**	**W5**	**SUPPLY**
P1	20	28	32	26	62	90
P2	42	35	32	44	26	100
P3	33	52	41	56	29	120
DEMAND	100	75	50	45	40	

10 Solve the assignment problem.. (12M)

JOBS/PERSONS	**P1**	**P2**	**P3**	**P4**
J1	13	5	8	10
J2	9	15	18	10
J3	12	14	10	10
J4	10	14	9	12

11 What are the differences between transportation and travelling salesmen problem? (12M)

12 Explain - certainty, Risk and uncertainty that influence business decision making. (12M)

13 What are the differences between PERT and CPM. (12M)

14 Queuing theory can be effective in determining optimum service level. Elucidate this statement with suitable example. (12M)

15 Solve the following game (12M)

PLAYER A/PLAYER B	B1	B2	B3	B4
A1	2	1	0	-2
A2	1	0	3	2