

## B.Sc Sem.-6 (Rep) Examination

CC 310

Statistics

Time : 2-30 Hours]

September-2024

[Max. Marks : 70

Q.1 (A)	Define Operation Research. Discuss different types of models used in operation research.	7
(B)	Define (i) Objective Function (ii) Unbounded solution (iii) Feasible solution	7
	OR	
(A)	Describe Simplex method of solving linear programming problem.	7
(B)	Define (i) Surplus Variable (ii) Slack Variable (iii) Artificial Variable	7
Q.2 (A)	Explain Matrix minimum Method of solving a transportation problem.	7
(B)	Explain various steps of U-V method of solving a transportation problem.	7
	OR	
(A)	Explain Assignment problem with suitable illustrations.	7
(B)	Write a short note on Vogel's approximation method.	7
Q.3 (A)	Compare and contrast CPM and PERT. Under what conditions would you recommend the scheduling by PERT?	7
(B)	Define (i) Activity (ii) Critical path (iii) Float time.	7
	OR	
(A)	State the circumstances where CPM is a better technique of project management than PERT.	7
(B)	Define (i) Optimistic time (ii) Most likely time (iii) Pessimistic time.	7
Q.4 (A)	Define Game theory. Give its assumptions and limitations.	7
(B)	Explain two person zero sum game, giving suitable example.	7
	OR	
(A)	Explain the general rules for dominance.	7
(B)	Explain Maxi-min and Mini-max principle used in Game theory.	7
Q.5	<b>Attempt any Seven</b>	14
1.	Define Constraints.	
2.	Define Basic Feasible Solution.	
3.	Define Optimal Solution.	
4.	What is degeneracy in transportation problem?	
5.	What do you mean by unbalance transportation problem?	
6.	For a transportation Problem having four origin and five destinations, how many constraints can be formed.	
7.	Define EST and LST.	
8.	Define EFT and LFT.	
9.	Define Dummy activity.	
10.	Define Fair Game.	
11.	Define Strictly determinable game.	
12.	Define Saddle point.	

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