

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2023****Subject Code:2180611****Date:06-12-2023****Subject Name:Construction Management****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Discuss on Responsibility of Engineer in construction project.	03
	(b) Write a short note on cash inflow and cash outflow.	04
	(c) Enlist and explain different phases of construction management.	07
Q.2	(a) Discuss Benefit/cost ratio.	03
	(b) Explain Limitations of Bar chart.	04
	(c) Discuss the factor for success of a construction organization.	07
	OR	
	(c) Discuss the rules for Drawing a Network.	07
Q.3	(a) Define Head event, Tail event and Dummy activity.	03
	(b) Discuss Total float and free float.	04
	(c) The following data of a project in PERT, the optimistic time, most likely time and pessimistic time are 8, 10 and 16 days respectively. Find Expected time, Standard deviation and Variance.	07
	OR	
Q.3	(a) Discuss Breakeven analysis for economic decision making.	03
	(b) Write a short note on Time estimate in PERT.	04
	(c) What is scheduling? Discuss Material, Labour and Equipment schedule.	07
Q.4	(a) Write a short note on break even analysis.	03
	(b) Define the term Normal time, Normal cost, crash time and crash cost.	04
	(c) Enlist methods used for construction contract revenue recognition and explain any two.	07
	OR	
Q.4	(a) Write a short note on Profit and loss account.	03
	(b) State objective of material management.	04
	(c) What is job layout? Explain in detail factor affecting job layout.	07
Q.5	(a) Write a short note on material codification.	03
	(b) Discuss Principle of Quality management system.	04
	(c) What is project cost management? Explain Value management in Construction.	07
	OR	
Q.5	(a) What is linear programming? How it is useful in construction?	03
	(b) A Ready mix concrete plant uses 300 tons of sand annually. The cost of sand is Rs 500/ton. The annual cost of carrying per ton of sand is Rs3,000 and cost of place an order is Rs. 20,000. For wastage, theft etc. inventory rate is 4.0%. Calculate Economic order quantity.	04
	(c) Define Inventory management. Explain in detail Fixed order scheduling policy and Two bin system.	07
