

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2022****Subject Code:3170614****Date:01/06/2022****Subject Name:Construction Engineering and 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) How Engineer can achieve economy in a construction project?	03
	(b) Explain in detail role of construction project manager on construction	04
	(c) Explain the different phases of project specifying the activities to be carried out in each of phases.	07
Q.2	(a) Distinguish between CPM and PERT.	03
	(b) Differentiate between serial and Parallel activities.	04
	(c) What is work breakdown structure in construction project? Draw work breakdown structure of a residential building project.	07
	OR	
	(c) Explain Fulkerson's rules for numbering the events of a network.	07
Q.3	(a) Write a short note on a FSN analysis.	03
	(b) Discuss evaluation of a public projects.	04
	(c) What is job layout? Draw job layout for a Commercial complex building and for a Dam site.	07
	OR	
Q.3	(a) Explain developing site organization.	03
	(b) Enlist duties of Executive Engineer and Assistant Engineer.	04
	(c) What are the advantages and disadvantages of (I) Centralized and local purchasing and (II) Early and late procurement?	07
Q.4	(a) What are the advantages of scheduling?	03
	(b) Discuss about Labour schedule and Financial schedule.	04
	(c) What are the objectives of resources allocation? Explain, what do you mean by resources leveling? Explain step by step process of resource leveling.	07
	OR	
Q.4	(a) Explain project control process.	03
	(b) Draw a specimen material schedule for a project and explain it.	04
	(c) Explain why time cost trade off is necessary? Discuss various ways to reduce the activity duration.	07
Q.5	(a) Enlist various safety equipments.	03
	(b) Give safety measures for scaffolding and excavation.	04
	(c) Enlist the all causes of accident happen at site. Discuss job of safety officer at site in brief.	07

OR

- Q.5** (a) List the factor affecting cycle time of truck. **03**
(b) Give comparison between conventional construction method and mechanized method. **04**
(c) Enlist the various hoisting equipment. Draw neat sketches & explain working of any three equipments. **07**
