GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - VII EXAMINATION - WINTER 2025

Subject Code: 117AV02   **Date: 05-12-2025**

Subject Name: Construction Project Management - Software Applications

Time: 10:30 AM TO 01:00 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)**	Define project management in construction. Explain its importance in modern infrastructure development.	**03**
	(b)	Explain the concept of bar chart and its role in construction project management.	**04**
	(c)	Discuss the step-by-step process of preparing a manual bar chart for a construction project.	**07**
Q.2	**(a)**	Define network planning and list its advantages over bar chart techniques.	**03**
	(b)	Explain the steps for developing a construction network using Critical Path Method (CPM).	**04**
	(c)	Prepare a work breakdown structure for a foundation of a building.	**07**
		OR	
	(c)	Describe the process of manual network creation for a residential building project and explain the float concept.	**07**
Q.3	**(a)**	Define MS Project and list its major features.	**03**
	(b)	Explain how to set up a new project in MS Project, including basic project information.	**04**
	(c)	Demonstrate the process of creating a work breakdown structure (WBS) in MS Project.	**07**
		OR	
	(a)	What is a milestone? Explain its significance in MS Project.	**03**
	(b)	Explain the process of task linking and dependency types in MS Project.	**04**
	(c)	How can resource over-allocation be identified and resolved in MS Project?	**07**
Q.4	**(a)**	Explain Manual vs. Auto Scheduling in MS Project.	**03**
	(b)	Write short note on defining resources and linking them to tasks.	**04**
	(c)	How do manual and auto scheduling affect project optimization?	**07**
		OR	

(a)	What are the advantages of Auto Scheduling?	**03**
(b)	Explain how constraints and calendars influence scheduling in MS Project.	**04**
(c)	Compare Manual and Auto Scheduling advantages and limitations.	**07**
Q.5 (a)	Describe report generation and printing outputs in MS Project.	**03**
(b)	Explain the role of output formatting and ribbon customization.	**04**
(c)	Discuss how MS Project improves project management efficiency.	**07**

OR

(a)	Explain challenges faced in adopting MS Project in small firms.	**03**
(b)	Suggest best practices for effective use of project management software.	**04**
(c)	Explain how digital project management supports sustainable construction.	**07**

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