

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-VII EXAMINATION – WINTER 2025****Subject Code:3171506****Date:15-11-2025****Subject Name:Project Management****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.
5. Abbreviations have usual meaning.

- Q.1** (a) State the role of the following in a “Team”: (i) leader, (ii) member, (iii) contributor. **03**
- (b) What do you mean by derivative projects, platform projects, breakthrough projects, and R&D projects? **04**
- (c) Detail the PM’s roles in a project. **07**
- Q.2** (a) “The PM must negotiate for almost everything the project needs”—Justify the statement. **03**
- (b) Provide the meaning and main causes of “Scope creep”. **04**
- (c) Discuss the steps involved in the “Project Portfolio Process”. **07**

**OR**

- (c) Nina is trying to decide in which of four shopping centers to locate her new boutique. Because of the nature of her store, she has decided that the class of clients is the most important consideration. Following this the rent is 90 percent as important as the class of clients. An indoor, temperature-controlled mall is desirable and she rates this as about 95 percent as important as rent. Last, a higher volume of shoppers means more potential sales; she thus rates this factor as 80 percent as important as rent.

As an aid in visualizing her location alternatives, she has constructed the following table. A “good” is scored as 3, “fair” as 2, and “poor” as 1. Use a weighted score model to help Nina select a location.

Table 1 Locations and scores

Location-----→	1	2	3	4
Class of clients	fair	good	poor	good
Rent	good	fair	poor	good
Indoor mall	good	poor	good	poor
Volume of shoppers	good	fair	good	poor

- Q.3** (a) What is the importance of ‘mind mapping’ in project planning? **03**
- (b) Summarize the procedure to create a WBS. **04**
- (c) Discuss the benefits of project planning. **07**

**OR**

- Q.3** (a) State the benefits of a RACI matrix. **03**
- (b) A project was allocated a budget of Rs. 2,00,000. As on date the company has spent Rs. 1,20,000 on the project and as per the PM the project is 75% completed. Using earned value analysis, find the difference between budget at completion and estimated (cost) at completion. **04**

- (c) As a PM in an organization describe how you would organize the project launch meeting. What outcomes would you expect? **07**

- Q.4** (a) What is the Game theory approach to analyze risk? **03**  
 (b) Following table shows the results of a FMEA conducted to assess the risk of a new drug development project at a pharmaceutical company. **04**

Table 2 Results of the FMEA

Potential failure risks	S	L	D
new drug is not safe	8	4	5
drug is not effective	8	6	5
drug interacts with other drugs	6	3	8
another company beats it to the market with a similar drug	7	3	2
Company is not able to produce the drug in mass quantities	6	4	4

S—Severity, L—Likelihood, D—Detectability (Ranks are on a ten-point scale)  
 Which two failure risks would you address first? And why?

- (c) Your firm designs PowerPoint slides for computer training classes, and you have received a request to bid on a contract to produce the slides for 8 sessions. From previous experience, you know that your firm follows an 85 percent learning rate. For this contract it took 50 hours for designing slides for the first session. Your firm bills at the rate of Rs. 100/hour and the overhead is Rs. 600 per session. If your profit margin is 20 percent, what will be the total bid price you will offer? **07**

**OR**

- Q.4** (a) What is top-down method of budgeting? **03**  
 (b) Enlist the objectives of a project audit. **04**  
 (c) Discuss the ways to improve cost estimates in budgeting. **07**

- Q.5** (a) Explain the meaning of “student syndrome”. **03**  
 (b) Write in brief about: Allocating scarce resources to projects. **04**  
 (c) A set of project activities is as shown below: **07**

Table 3 Activity details

ID	Task Name	Predecessors	Duration
1	Start		0 days
2	a	1	10
3	b	2	12
4	c	3	12
5	d	3	6
6	e	3	14
7	f	4, 5	10
8	g	5	10
9	h	6, 8	8
10	Finish	7, 9	0

Draw a Gantt chart for this project.

**OR**

- Q.5** (a) Explain the meaning of crashing of an activity in project. **03**
- (b) Suppose you need to borrow resources from your ongoing project and use it in another project. Which point would you take care of if your ongoing project has a life cycle of “J”-type? **04**
- (c) For the project given in Q.5 (c) above (i.e., Table 3), find the critical path and project duration. **07**

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