

Enrollment No./Seat No.:

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA - SEMESTER - II EXAMINATION - WINTER 2025**

**Subject Code: MB02096021**

**Date: 21-01-2026**

**Subject Name: IT Project Management**

**Time: 02:30 PM TO 05:30 PM**

**Total Marks: 70**

**Instructions**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. USE of SIMPLE calculators AND non-programmable scientific calculators are permitted.**

**Marks**

**Q.1** ALL 7 Questions must be Compulsory.

**14**

- (a) DFD
- (b) Business Case
- (c) UML
- (d) WBS
- (e) Project Management
- (f) Delphi Technique
- (g) ROI

**Q.2 (a)** Explain how different factors contribute to the success, challenges, or failure of IT projects, using examples to illustrate each category.

**07**

- (b) Apply the five phases of project management to a real or hypothetical IT project. Describe how each phase would be executed in that context.

**07**

**OR**

- (b) What is SDLC? Discuss the various phases of SDLC.

**07**

**Q.3 (a)** Compute Net Cash Flow and Net Present Value from the given data.

**07**

| Year         | 0        | 1        | 2        | 3        | 4        |
|--------------|----------|----------|----------|----------|----------|
| Cash Inflow  | 0        | 1,80,000 | 2,20,000 | 2,70,000 | 3,20,000 |
| Cash Outflow | 2,50,000 | 90,000   | 1,30,000 | 1,60,000 | 2,10,000 |

Consider the discount rate is 8%.

- (b) Discuss Guesstimation and Delphi model techniques.

**07**

**OR**

- (a) Consider the details of a project as shown in the table.

07

| Task ID | Task Description    | Task Predecessors | Task Duration (hours) |
|---------|---------------------|-------------------|-----------------------|
| A       | Project start       |                   | 0                     |
| B       | Buy materials for A | A                 | 10                    |
| C       | Buy materials for B | A                 | 20                    |
| D       | Build A             | B, C              | 30                    |
| E       | Build B             | B, C              | 20                    |
| F       | Polish and finish B | E                 | 40                    |
| G       | Join A and B        | D, F              | 20                    |
| H       | Project finish      | G                 | 0                     |

A] Construct the CPM Network.

B] Determine the critical path and project completion time.

C] Compute total floats and free floats for non-critical activities.

- (b) Compute effort, duration and people required for an Organic type application having 10,600 lines of code.

07

**Q.4** (a) What is Risk Management? Discuss common mistakes in Risk Management.

07

- (b) Discuss COCOMO model in brief.

07

**OR**

- (a) What is quality system in IT-Project Management? Discuss ISO standardizations in brief

07

- (b) Explain six sigma ( $6\sigma$ ) quality system in brief.

07

**Q.5**

Case Study: ERP Implementation at Zenith Textiles Ltd.

Background: Zenith Textiles Ltd., a mid-sized manufacturing company, decided to implement an ERP system to streamline operations across departments—finance, inventory, HR, and sales. The project was initiated with a budget of ₹1.5 crore and a timeline of 12 months. A cross-functional team was formed, and an external vendor was hired to customize and deploy the ERP solution.

Challenges Faced:

- Scope creep due to frequent change requests from department heads
- Resistance from employees unfamiliar with digital workflows
- Delays in data migration and integration with legacy systems
- Budget overrun of ₹40 lakhs and a 3-month delay in go-live

Outcome: Despite initial setbacks, the ERP system was successfully deployed. Post-implementation reviews showed improved reporting, reduced inventory errors, and faster payroll processing. However, user adoption remained low in some departments due to lack of training.

**(a)** Apply the five phases of the project management lifecycle to Zenith's ERP implementation. Briefly describe how each phase was handled or could have been improved. **07**

**(b)** Analyze the key risks that emerged during the project and suggest mitigation strategies that could have minimized their impact. **07**

**OR**

**(a)** Evaluate the role of stakeholder engagement and change management in the success or failure of IT projects like this one. **07**

**(b)** Design a post-implementation strategy to improve user adoption and maximize ROI from the ERP system. **07**

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