

Enrollment No./Seat No.:

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

**Subject Code: N2529303**

**Date: 04-06-2025**

**Subject Name: Global Operations Management**

**Time: 10:30 AM TO 01:30 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.**

|   | <b>Marks</b> |
|---|--------------|
| <b>Q.1</b>  | <b>14</b>    |
| <ul style="list-style-type: none"><li><b>(a)</b> Quality Control</li><li><b>(b)</b> Write Two Objectives of Demand Forecasting with examples</li><li><b>(c)</b> Write Reasons for Production Redesign.</li><li><b>(d)</b> Maintainability</li><li><b>(e)</b> Designing for Environmental Protection</li><li><b>(f)</b> Principle of Minimum Investment</li><li><b>(g)</b> ISO 14001</li></ul> |              |
| <b>Q.2 (a)</b>  | <b>07</b>    |
| <p>Explain the role of Operations Management in service industries like healthcare or banking. How does OM help improve productivity and customer satisfaction in these sectors?</p>  |              |
| <b>(b)</b>  | <b>07</b>    |
| <p>With reference to a manufacturing or retail business, explain the steps involved in demand forecasting. How can poor forecasting impact business operations?</p>   |              |
| <b>OR</b>   |              |
| <b>(b)</b>  | <b>07</b>    |
| <p>A logistics company is planning a new warehouse. Discuss the key factors it should consider when selecting a facility location. What errors must it avoid during this process?</p>   |              |
| <b>Q.3 (a)</b>  | <b>07</b>    |
| <p>What is outsourcing in global operations? Discuss its benefits and risks using a practical business example (e.g., IT, garments, automotive).</p>  |              |
| <b>(b)</b>  | <b>07</b>    |
| <p>Explain the objectives of material management in a manufacturing unit. How can a good MMIS (Material Management Information System) improve operational efficiency?</p>  |              |
| <b>OR</b>   |              |
| <b>(a)</b>  | <b>07</b>    |
| <p>Explain how supply chain management plays a critical role in global business operations. Give real-life examples of companies with strong SCM practices.</p>   |              |

- (b) Define mass customization. How can a company apply this concept to satisfy diverse customer needs while maintaining production efficiency? **07**

- Q.4 (a)** A project consists of the following activities: **07**

Activity Predecessor(s) Duration (Days)

|   |      |   |
|---|------|---|
| A | –    | 4 |
| B | –    | 3 |
| C | A    | 5 |
| D | A, B | 6 |
| E | C    | 2 |
| F | D, E | 4 |

Instructions:

1. Construct a network diagram showing activity flow and dependencies.
2. Perform a forward pass to calculate the Earliest Start (ES) and Earliest Finish (EF) for each activity.
3. Perform a backward pass to calculate the Latest Start (LS) and Latest Finish (LF).
4. Identify the critical path and compute the total project duration.

- (b) Differentiate between production and operations using practical business examples. How do both functions interrelate to achieve organizational goals in a car manufacturing company? **07**

**OR**

- (a) Activity Predecessor(s) Duration (Days) **07**

|   |      |   |
|---|------|---|
| A | –    | 2 |
| B | A    | 4 |
| C | A    | 3 |
| D | B, C | 6 |
| E | C    | 5 |
| F | D, E | 2 |
| G | F    | 3 |

Instructions:

1. Draw a network diagram clearly showing activity sequences.
2. Calculate ES and EF using the forward pass method.
3. Calculate LS and LF using the backward pass method.
4. Determine the critical path and total project completion time.

- (b) A tech startup is launching a new smartwatch. Explain the factors that should be considered in designing this product, and how ethical and environmental concerns can influence product design decisions. **07**

**Q.5**

FreshBake Foods Pvt. Ltd. is a mid-sized bakery chain operating in three cities in India. The company specializes in premium cakes, breads, and pastries. Over the past year, it has been experiencing rapid growth in demand, particularly due to its strong online presence and timely home delivery service.

However, with growth came challenges. The company began facing frequent stockouts of ingredients, delays in delivery, and customer complaints regarding inconsistent product quality. Management realized that their operations had not scaled efficiently with the business growth.

They hired an Operations Manager, Ms. Riya Shah, to streamline the system. Riya began with a detailed study of their current operations. She found several key issues:

1. Poor demand forecasting leading to either overproduction or shortage of items.
2. No structured material management system, causing wastage and inefficiencies.
3. Inefficient facility layout in the central kitchen, resulting in worker congestion and longer preparation time.
4. Outdated quality control processes that didn't align with modern food safety standards.
5. Lack of project planning for launching new branches and products.

Riya implemented several changes including the adoption of a Material Management Information System (MMIS), redesigning the kitchen layout for better workflow, introducing TQM practices, and using quantitative forecasting methods to predict demand accurately.

- (a) Explain the role of demand forecasting in FreshBake's operations. What forecasting technique would best suit this type of business, and why? **07**
- (b) What are the principles of good facility layout? Based on the case, identify two layout-related issues and how redesigning the kitchen helped improve efficiency. **07**

**OR**

- (a) What is Total Quality Management (TQM)? How can TQM improve product consistency and customer satisfaction in a bakery business like FreshBake? **07**
- (b) FreshBake plans to launch a new product line in 6 weeks. How can tools like PERT or CPM help in planning and scheduling the launch? Briefly explain with an example of activities involved. **07**

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