

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MBA– SEMESTER -II - EXAMINATION- SUMMER-2023**

**Subject Code: 2529303****Date: 13/07/2023****Subject Name: Global Operations Management****Time: 10:30 AM TO 1:30 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.

- Q.1** Explain the terms **14**
- a) Reengineering
  - b) Taking “Big Picture” approach
  - c) Conditioning Industry
  - d) CM Layout
  - e) Ubiquitous Material
  - f) Functional Design
  - g) MMIS

- Q.2 (a)** Discuss the duties and responsibilities of production managers in manufacturing organizations. **07**

- Q.2 (b)** What are the key factors to consider in product design? How do they impact the overall success of a product? **07**

**OR**

- Q.2 (b)** What are the factors that contribute to errors in location selection? **07**

- Q.3 (a)** What are the principles of layout design? Provide examples to illustrate each principle. **07**

- Q.3 (b)** Discuss the key components of material management organization and their responsibilities. **07**

**OR**

- Q.3 (a)** Describe the various phases in a ‘project life cycle’. **07**

- Q.3 (b)** Describe the various stages involved in project management, including planning, scheduling, monitoring, and controlling. **07**

- Q.4 (a)** Describe the process of internationalization of Research and Development (R&D) and its impact on quality management. **07**

- Q-4 (b)** Discuss the concept of outsourcing in the context of global operations management. What are the key considerations in outsourcing decision-making? **07**

**OR**

- Q.4 (a)** What is “lean production”? What is its relevance to JIT? **07**

- Q.4 (b)** Define mass customization and explain its significance in today's new era of market. Explain **07**

**Q.5** Around 1970 Government of India mooted the idea of expanding steel production under public sector units to be established at suitable locations. A committee of eminent personalities was formed to go through claims of (i) Vijaynagar Steel plant near Bellary in Karnataka, (ii) Salem Steel in TN and (iii) Vishakapatam steel plant in A.P. The most important raw materials for steel plant are iron ore, power and coal. Again in iron ore the iron percentage should be preferably more than 60% and ash content in coal should be less than 30%. These factors enable production of iron and steel at competitive price. From experts' reports the following brief was available:

(a) Vizag – The Iron ore is rich with 65% Iron and coal can be mined from MP and Bihar and Vizag is well connected by broad gauge railway line to all important cities and the place has sea port and airport. Hence this place has more natural advantage than other cities.

(b) Salem – Iron ore was having 60 to 65%. Iron content and hence be economically exploited. The coal is in lignite form which is low quality coal. Hence this needs to be converted as coke for use. The place has broad gauge line and Madras sea port and airport are nearby. This place was considered second preference.

(c) Vijaynagar – Bellary belt has Iron ore of 60% iron but coal has to come from AP (Singareni Colliery). The place had meter gauge railway line and hence not well connected to all India network. The seaport and airports were far away and hence this place was not found suitable.

As per the expert committee report steel plant work started at Vizag and Salem and these plants came up as per the plan and are doing well. Steel plants are quite huge with township having about 50,000 to 1,00,000 people. Hence requirements of housing, electricity, water, hospitals, education, institutions, and entertainment facilities are very essential. The investment is huge and this helps to develop the surrounding area quite well and there is abundant scope for ancillary units, engineering services and employment inside and outside the steel plant. Both Vizag and Salem got these advantages and production standard as per the plan and these industries continue to run profitably.

The expert committee had made comment on Vijaynagar proposal that, the unit can be viable if it uses latest foreign technology. Though PSU was not started a private enterprise it took interest and applied for license to the Central Government. By the year 1990 they obtained license and Vijaynagar Steel plant with foreign technology and decided to make only sheet products, which fetch higher prices. They also kept bare minimum workforce and executives to make it economical right from inception. By this time broad gauge lines were formed and nearest seaport was Goa and hence some problems were taken care. This unit became operative in about 3 years and is also running profitably.

(a) What are essential factors for locating a Steel plant and why? **07**

(b) Explain how it was possible to make Vijaynagar plant viable. **07**

**OR**

(a) Why Vizag and Salem became profitable locations for steel production? **07**

(b) The selection of a region plays an important role while locating a steel plant. Discuss. **07**

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