

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

Subject Code: 1529303**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**
- | | |
|-----------------------|--------------------------|
| 1. Kanban | 5. Operations Management |
| 2. MRP | 6. ERP |
| 3. Mass Customization | 7. Six Sigma |
| 4. PERT | |

- Q.2** (a) Write a detail note on ten key strategic decisions an operation manager of a multinational company should be capable to take for effective utilization of resources. **07**
- (b) Following activities are part of a project to be scheduled using CPM: **07**

Activity	Immediate Predecessor	Time
A	-	6
B	A	3
C	A	7
D	C	2
E	B,D	4
F	D	3
G	E,F	7

- a. Draw the Network Diagram
- b. What is critical path
- c. How many weeks will it take to complete the project?

OR

- (b) “Project control should always focus on the critical path” Critically examine the statement. **07**
- Q.3** (a) Write a note on Various types of Plant Layout in brief with suitable examples. **07**
- (b) Define Product Life Cycle and its importance in Operations Management. Discuss the impact of goods and services design in each stage with suitable examples. **07**

OR

- Q.3** (a) Finding optimal Aggregate plan is not always possible. Explain with the help of mixing options available such as level strategy, chase strategy and various capacity options. **07**

- (b) Effective MRP has vital role to play in service sector, discuss considering Hospital's effective performance during covid 19 pandemic. **07**
- Q.4** (a) Mass customization facilitates competitive advantage .Discuss Supply Chain Design for Mass Customization. **07**
- (b) The essence of Lean System is to eliminate waste. Explain eight different types of wastes with suitable examples. **07**
- OR**
- Q.4** (a) Discuss important tactics through which appropriate Reliability and Maintenance measures can be adapted in an organization. **07**
- (b) Learning curves are based on the premise that people and organizations become better at their tasks as the tasks are repeated. Discuss the limitations of Learning Curves. **07**

Q.5 The Big Gun Powder company produces powder for gun shells in its only plant which is in Coimbatore. The plant is 100 years old. But due to growing environmental concern of municipal authorities and the community, the company is considering three new location alternatives for its administrative office and manufacturing plant. These three alternatives are rural locations X, Y and Z. The production process requires 300 production workers and 200 engineering and management personnel, large amount of water and other utilities, large are of land, large volume of materials to be shipped in and out of the plant and fire and explosion tolerant areas.

The three locations under considerations have been analyzed by the company staff and operating costs estimated are as below:

Location	Annual Fixed cost	Variable cost /kg of gun powder
X	Rs.30 lakhs	Rs.20
Y	Rs.27 Lakhs	Rs.30
Z	Rs.22 Lakhs	Rs. 50

Based on the information shared above you are required to answer following questions.

- (a) What major factors should be considered in choosing one of the three location alternatives? Critically explain the selection with supporting arguments. **07**
- (b) How would you assign the weights for the factors developed for the gun powder plant location? **07**
- OR**
- Q.5** (a) Which are the important factors to consider in plant location selection? And why? Discuss and Justify your answer. **07**
- (b) Analyze the factors and recommend a course of action for Big gun powder company. **07**
