

Register No.: Name.:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SECOND SEMESTER MBA DEGREE EXAMINATION (S), December 2021

Course Code : 20MBA108

Course Name: Operations Management

Max. Marks : 60

Duration: 3 Hours

PART A

(Answer all questions. Each question carries 2 marks)

1. Enumerate various types of process types. Which process type is used in the following activities: new product development, car production and oil refining?
2. Write the formula for Multifactor productivity and Productivity index?
3. Discuss the importance of benchmarking in continuous improvement?
4. What are SCOR metrics?
5. Distinguish between Push scheduling and Pull scheduling

PART B

(Answer any 3 questions. Each question carries 10 marks)

6. Organizations become involved in product and service design or redesign for a variety of reasons. Justify the statement.
7. Discuss the advantages and limitations of different types of facility layout?
8. Explain: (i) Work Study 3 Marks
(ii) Method Study 4 Marks
(iii) Work Measurement. 3 Marks
9. ABC Ltd. uses Economic Order quantity (EOQ) logic to determine the order quantity for its various components and is planning its orders. The Annual consumption is 80,000 units, Cost to place one order is Rs. 1,200, Cost per unit is Rs. 50 and carrying cost is 6% of Unit cost.
 - I. Find Economic order quantity,
 - II. Number. of order per year,
 - III. Determine the Ordering Cost
 - IV. Determine the Carrying Cost
 - V. Determine the total Cost of Inventory.
10. What is Lean Manufacturing? Explain the principles of Lean Management?

PART C

(Compulsory question, the question carries 20 marks)

11. i. XYZ Company is a medical equipment manufacturer. You are working as an aggregate planner for the company. You are now assigned with a task to prepare a master production schedule for June and July for the making defibrillators. Marketing team has forecasted demand of 120 defibrillators for June and 160 defibrillators for July, evenly distributed over the four weeks in each month. As you see through the company records, you found that the beginning inventory is 64 defibrillators and that there are customer orders that have been committed (booked) and must be filled (*Refer the table below*). Production lot size is 70. Develop a master production schedule. 10 Marks

Beginning Inventory=64	June				July			
Weeks	1	2	3	4	5	6	7	8
Forecast	30	30	30	30	40	40	40	40
Customer orders (committed)	33	20	10	4	2			
Projected-on-hand inventory								
MPS								
Available to promise inventory (ATP)								

- ii. Briefly explain the managerial use of Master Production Schedule? 5 Marks
- iii. Discuss the difference between Projected-on-hand inventory and Available to promise inventory (ATP) in Operations Management. 5 Marks
