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

Subject Code: 4529205   **Date: 17/07/2023**
Subject Name: Production & 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 following terms in brief	**14**
		A. Supply Chain Management	
		B. VED Analysis	
		C. Bottleneck	
		D. Cycle Time	
		E. Pareto analysis	
		F. TQM	
		G. Project crashing	
Q.2	**(a)**	Elaborate the duties and responsibilities of production mangers in manufacturing ornfanisation.	**07**
Q.2	**(b)**	What is product Design? Describe the various steps to develop the product designing with suitable example.	**07**

OR

Q.2	**(b)**	Hirva Enterprise wants to start the business of Roasted Food Items in Gujarat. She is searching the best location for the plant. Suggest her which kind of points she should consider before to start the plant.	**07**
Q.3	**(a)**	What is Aggregate Production Planning? Describe the objectives of it.	**07**
Q.3	**(b)**	What is Master Production Schedule? Discuss the objectives and functions of it.	**07**

OR

Q.3	**(a)**	Discuss the any three Inventory Management methods used in manufacturing units.	**07**
Q.3	**(b)**	What is Six-Sigma? Describe the role of DMAIC strategy to improve the quality of any product.	**07**
Q.4	**(a)**	The management of Ansh Enterprise is going to erect a building. The activities, activity descriptions, and estimated durations are given in the following table	**07**

Name of Activity	A	B	C	D	E	F	G	H	I	J	K
Activity Node	1-2	1-3	1-4	2-5	3-5	3-6	3-7	4-6	5-7	6-8	7-8
Duration (In Days)	2	7	8	3	6	10	4	6	2	5	6

From the above information
    1. Draw network diagram and find out critical path.
    2. Calculate EST, LST, EFT, LFT.

Q.4	**(b)**	What is Statistical Process Control? Describe various Attribute Charts and Variable charts in detail.	**07**

OR

Q.4 (a) The information regarding Jobs to be scheduled through one machine is given below. **07**

Job	A	B	C	D	E	F	G
Processing Time (Days)	5	3	4	6	7	8	3
Due Date (Days)	14	10	15	8	12	9	7

From The above information prepare the table of sequencing by using following sequencing rules.

1. D-DATE
2. SLACK

Q.4 (b) What is Industrial Safety? What are the steps to be taken to prevent accidents in any organisation. **07**

Q.5 Case Study

The Little Angel Restaurant is famous restaurant of Mumbai. The restaurant has 25 Tables for 6 People, 20 Tables for 4 People and 15 Tables for 2 People. On an average during week days (Monday to Friday) 550 customers come to the restaurant and during weekends (Saturday and Sunday) over 700 customers are coming for the Lunch and Dinner evrryday.

The restaurant is also known for the good taste, cleanliness, the restaurant layout, service, cooperation from the staff and the other factors. These factors, when managed carefully, will be able to attract plenty of customers. The restaurant is also following the SOP of the government regarding COVID-19 Pandemic Situation. They are also regularly sanitizing the restaurant and disinfecting all touch points which include everything. All the staffs are fully vaccineed with both the dose of vaccination.

Waiting for service in a restaurant is a part of our daily routine, especially during lunch and dinner time. There is always long waiting for the lunch between 12:00 PM to 14:30 PM and for the dinner between 19:00 PM to 22:00 PM. However, in the rest time restaurant having free tables.

The Management of the restaurant has also initiated a token system to manage the customers and avoid a large gathering inside restaurant but they were failed.

Because of long queue the image of the restaurant is going down and so many customers are avoided to take the food in spite of good taste and other factors. They have also identified that No. of loyal customers have been lost because of long queue.

Q.5 (a) Analyze the problem mentioned in above case study of The Little Angel Restaurant. **07**

Q.5 (b) Develop the Queue Management Model for The Little Angel Restaurant especially in the peak time of the restaurant. **07**

OR

Q.5 (a) If you are the manager of the restaurant then which kinds of steps to be taken to handle the customers for The Little Angel Restaurant. **07**

Q.5 (b) Evaluate the impact of your decision regarding the profit, satisfaction, and other factors from the side of customers as well as employees. **07**

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