Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – WINTER 2018

Subject Code:2151407   **Date:04/12/2018**

Subject Name:Entrepreneurship and Food Plant Management

Time: 10:30 AM TO 01:00 PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Enlist the objectives of operation management.	**03**
Q.1	**(b)**	**Introduce following terms briefly.**	**04**
	1	Kanban	
	2	Master Production Schedule (MPS)	
	3	Materials Requirement Planning (MRP)	
	4	Capacity planning	
Q.1	**(c)**	Calculate the breakeven point for a food industry with the following data:	**07**

Capacity:	1.5 ton/hour	Production efficiency :	85%
Raw material cost :	Rs. 10,00,000/- per working day	Water charges:	Rs 23000/- per working day
Fixed cost :	Rs 9,00,000/- per year	Energy charges:	Rs 28,000/- per working day
Maintenance: (including miscellaneous expenditure)	Rs 2,50,000/- per year.	Working hours:	12hour/day
Maximum sale price:	Rs 85,000/- per ton;	Salary of permanent staff:	Rs 2,50,000/- per month

Q.2	**(a)**	Who can be a successful entrepreneur?	**03**
	(b)	Explain how DIC supports SSI.	**04**
	(c)	Calculate the depreciation value of Form Fill and Sealing machine whose initial cost is 1,80,000/- , salvage value of 10,000/- and life is 8 years by the following methods.	**07**

       I.   Straight line method
      II.   Fixed rate of 8% per annum
     III.   Variable rate (first year 6%; second year 9% and third year 12%)

OR

	(c)	What are the different stages of food processing industry? What are the precautions to be taken during teething stage?	**07**

Q.3 **(a)** Fixed rate of depreciation is not considered in food processing industry. Justify the statement. **03**

(b) Write a brief note on the followings. **04**
   i)   NABARD
   ii)   SEEUY

(c) Define maintenance. Discuss the advantages and limitations of maintenance. **07**

OR

Q.3 **(a)** Enlist the characteristics of an entrepreneur. **03**

(b) Write a brief note on the followings. **04**
   i)   Working capital
   ii)   TCO

(c) What do you understand by JIT? Discuss the principles involved in JIT concept. **07**

Q.4 **(a)** Sketch out conceptual model of a production system. **03**

(b) State the assumptions underlying for economic batch quantity determinations. **04**
A manufacturer of a food grinder requires a special roller bearing at the rate of 300 nos. per year. Each bearing costs the company Rs. 36/-. Every order procurement cost and inventory carrying cost have been calculated at Rs. 30 and 20% respectively. Calculate Economic lot size for the purchase.

(c) Discuss the factors affecting choice of manufacturing system for an organization. **07**

OR

Q.4 **(a)** Differentiate between strategic decisions and operational decisions. **03**

(b) What are ways to improve productivity of an organization? **04**

(c) Briefly highlight on ABC Analysis of inventories. Categorize the following items and comment on their inventory categorization with ABC analysis. **07**

Item No.	1	2	3	4	5	6	7	8	9	10
Annual usage	19	9	84	50	125	44	3	7	1000	5
Cost per unit (Rs)	840	81	120	25	5	6	1500	200	2.5	80

Q.5 **(a)** Store is the heart of materials management system. Justify. **03**

(b) What do you understand by HML Analysis? State its significance. **04**

(c) Classify manufacturing systems. Highlight on the salient features of each manufacturing systems. **07**

OR

Q.5 **(a)** Define forecasting. State the importance of forecasting. **03**

(b) Differentiate between production planning and production control. **04**

(c) Explain the graphical representation of recorder level, recorder quantity and safety stock for independent demand purchases. **07**

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