

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2020

Subject Code:3152607

Date:03/02/2021

Subject Name:Rubber Product & Process Engineering

Time:10:30 AM TO 12:30 PM

Total Marks: 56

Instructions:

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS																								
Q.1	(a) Write the effect of following chemicals on human health : (i) Sulphur (ii) Peroxide (iii) Ethanol.	03																								
	(b) Write the advantages of Good Housekeeping.	04																								
	(c) Define the terms: Pollution and Pollutant. Write the damages caused by the pollution on the natural functioning of biosphere.	07																								
Q.2	(a) Explain the concept of Production Management System.	03																								
	(b) Describe in brief management philosophies: Just In Time And Last in first out.	04																								
	(c) The annual data for ABC Ltd. is given below.	07																								
	<table border="1"><thead><tr><th>Sr.No.</th><th>Particulars</th><th>Amount Rs.</th></tr></thead><tbody><tr><td>1</td><td>Sales 1,00,000 units at Rs. 100/- each</td><td></td></tr><tr><td>2</td><td>Raw material cost</td><td>10,00,000</td></tr><tr><td>3</td><td>Utility Cost</td><td>1,00,000</td></tr><tr><td>4</td><td>Labour Cost(Daily Wages)</td><td>1,00,000</td></tr><tr><td>5</td><td>Salaries</td><td>10,00,000</td></tr><tr><td>6</td><td>Administrative expenses</td><td>1,00,000</td></tr><tr><td>7</td><td>Rent, Insurance</td><td>1,00,000</td></tr></tbody></table>	Sr.No.	Particulars	Amount Rs.	1	Sales 1,00,000 units at Rs. 100/- each		2	Raw material cost	10,00,000	3	Utility Cost	1,00,000	4	Labour Cost(Daily Wages)	1,00,000	5	Salaries	10,00,000	6	Administrative expenses	1,00,000	7	Rent, Insurance	1,00,000	
Sr.No.	Particulars	Amount Rs.																								
1	Sales 1,00,000 units at Rs. 100/- each																									
2	Raw material cost	10,00,000																								
3	Utility Cost	1,00,000																								
4	Labour Cost(Daily Wages)	1,00,000																								
5	Salaries	10,00,000																								
6	Administrative expenses	1,00,000																								
7	Rent, Insurance	1,00,000																								
	Calculate variable cost, fixed cost, contribution and breakeven point as percent installed capacity.																									
Q.3	(a) Mention the areas of Air pollution in rubber industry.	03																								
	(b) Discuss fundamental Ethics for Rubber Engineers.	04																								
	(c) Write a note on different forms of plant maintenance.	07																								
Q.4	(a) Write difference between Risk and Hazard.	03																								
	(b) Give any Four examples of Historical incident due to hazardous material.	04																								
	(c) Explain various components of Safety Program.	07																								
Q.5	(a) Write the common effects of Chemical on Human health.	03																								
	(b) Write a note on Primary factors for selecting plant location.	04																								
	(c) Draw the plant layout diagram for Rubberized seal manufacturing Unit.	07																								
Q.6	(a) Discuss on sprinkler system.	03																								
	(b) Explain any two methods for controlling fire hazards.	04																								
	(c) Explain the ways for Conserving energy in rubber Industry.	07																								

- | | www.FirstRanker.com | www.FirstRanker.com |
|------------|--|--|
| Q.7 | (a) Describe the handling methods at Moulding Department. | 03 |
| | (b) Discuss benefits of motion economy. | 04 |
| | (c) Explain the important of flow chart in Rubber industry. | 07 |
| Q.8 | (a) Define the terms: - Peak power demand, Power factor & Energy Conservation. | 03 |
| | (b) Discuss any four benefits of Proper Planning in production department. | 04 |
| | (c) List all the information needed to judge the project from financial angle. | 07 |

www.FirstRanker.com