

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2172603****Date: 26/11/2018****Subject Name: Rubber Plant & Process Engineering****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.

MARKS

- Q.1** (a) Name the chemical responsible for each of the following health hazards: (i) Bladder cancer (ii) Skin cancer (iii) Kidney damage **03**
- (b) Why Good housekeeping is important for Rubber Industries? **04**
- (c) Discuss the health hazard from various types of non black fillers. **07**

- Q.2** (a) Explain the concept of Total Quality Management. **03**
- (b) Describe in brief management philosophies: Just In Time And RFT. **04**
- (c) The annual data for XYZ Ltd. is given below: **07**

Sr.No.	Particulars	Amount Rs.
1	Sales 1,00,000 units at Rs. 200/- each	
2	Raw material cost	10,00,000
3	Utility Cost	1,00,000
4	Labour Cost (Daily Wages)	3,00,000
5	Salaries	10,00,000
6	Administrative expenses	1,50,000
7	Rent, Insurance	1,00,000

Calculate variable cost, fixed cost, contribution and breakeven point as percent installed capacity.

OR

- (c) Draw the plant layout diagram for O-Ring manufacturing industry. **07**
- Q.3** (a) Give any three examples of Chronic toxicity. **03**
- (b) Describe the features of Rural site location for plant. **04**
- (c) Explain different forms of plant maintenance. **07**

OR

- Q.3** (a) Write the common effects of Rubber Chemicals on health. **03**
- (b) Write down the importance of plant layout for industries Purpose. **04**
- (c) Write the damages caused by the pollution on the natural functioning of biosphere. **07**

- Q.4** (a) Mention the areas of Noise pollution in rubber industry. **03**
(b) Discuss fundamental criteria for Engineers. **04**
(c) Write a note on personal protective equipments. **07**

OR

- Q.4** (a) Write various components of safety program. **03**
(b) Explain any one method for controlling fire hazards. **04**
(c) Define the terms:-Peak power demand & Power factor. **07**
Explain the ways for Conserving energy in rubber industry.

- Q.5** (a) What is meant by toxicity? Give examples. **03**
(b) Write a note on Secondary factors for selecting plant location. **04**
(c) List all the information needed to judge the project from financial angle. **07**

OR

- Q.5** (a) Discuss on inerting system. **03**
(b) List different ways for reducing physical waste generation. **04**
(c) List the obstacles of an entrepreneur desiring to set up a small industry. How the Government is helping entrepreneurs in solving these obstacles? **07**

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