

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-V (NEW) EXAMINATION – WINTER 2024

Subject Code:3152311

Date:25-11-2024

Subject Name:Instrumentation, Safety And Maintenance In Plastic Industry

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.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1	(a) List the function of Maintenance Department.	03
	(b) List function of Lubricants.	04
	(c) Explain Basic Mechanism of corrosion. Explain about corrosion and plastic industry.	07
Q.2	(a) Define Pressure. Explain in brief about pressure.	03
	(b) What is the reason for Plant Maintenance?	04
	(c) What is the purpose of Thermocouple? Explain about Thermocouple in detail with neat sketch.	07
	or	
	(c) Define safety. List the types of safety and causes of fire.	07
Q.3	(a) Define Wear. Explain in brief about wear between screws and barrel.	03
	(b) Define: Accuracy ,Repeatability, Sensitivity and True Value	04
	(c) Advantages and dis-advantages of Filled System Thermometers.	07
	or	
Q.3	(a) List and Explain about Liquid Lubricants.	03
	(b) What is corrosion? List the types of corrosion.	04
	(c) Explain about Break down Maintenance in detail.	07
Q.4	(a) List the advantages and dis advantages of Manometer.	03
	(b) Explain about LVDT	04
	(c) List the types of Maintenance. Explain about Preventive Maintenance in detail.	07
	or	
Q.4	(a) List the advantages of Strain Gauge Pressure Transducers.	03
	(b) What is the Role of Maintenance Department in Plastic Processing Unit?	04
	(c) List and Explain about various properties of Lubricants.	07
Q.5	(a) Explain about safety in Compression Molding Process.	03
	(b) List about potential losses from accidents.	04
	(c) What is the basic purpose of Instrumentation? Explain about functional elements of an Instrument.	07
	or	
Q.5	(a) List types of wear. Explain about it in detail.	03
	(b) Define Lubricants and Lubrication. List types of Lubricants according to service.	04
	(c) Explain about Bourdon Tube Pressure Gauge in detail.	07
