

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code: 2161505

Date: 21/05/2019

Subject Name: Maintenance & Safety Engg

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) State the scope of maintenance in industries.	03
	(b) What are objectives of maintenance department?	04
	(c) How Safety Engg. helps in improving productivity of an organization?	07
Q.2	(a) What is an industrial hazard?	03
	(b) Discuss the main causes of fire and fire extinguisher means.	04
	(c) Explain maintenance planning and scheduling.	07
	OR	
	(c) Explain the concept of 'Reliability centered maintenance' in detail.	07
Q.3	(a) What is 'decision tree'?	03
	(b) How will you decide about the replacement of equipment?	04
	(c) What is Total productive maintenance (TPM)? Discuss the important pillars for the successful implementation of TPM programme.	07
	OR	
Q.3	(a) What are the disadvantages of breakdown maintenance?	03
	(b) State the difference between preventive and predictive maintenance.	04
	(c) List out various assumptions in MAPI method and explain the procedure of MAPI method with the help of any example.	07
Q.4	(a) Why maintenance record keeping is necessary?	03
	(b) Prepare sample machine history card for any machine.	04
	(c) Explain the elements of planned preventive maintenance programme.	07
	OR	
Q.4	(a) What are the components of maintenance cost?	03
	(b) Explain how overall maintenance cost can be reduced.	04
	(c) Write brief note on : Use of computers in maintenance management.	07
Q.5	(a) Explain the industrial hazards involved in machining process.	03
	(b) What are the causes of an accident?	04
	(c) Discuss safety rules for the foundry work and welding operation.	07
	OR	
Q.5	(a) Explain the industrial hazards involved in press working process.	03
	(b) What measures will you take for good house/workshop keeping?	04
	(c) Discuss Safety education and training program and its importance for any organization.	07
