Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE - SEMESTER-VIII EXAMINATION - WINTER 2015**

Subject Code:181905 Date:12/12/20 Subject Name: Industrial Safety & Maintenance Engineering Time: 2:30pm to 5:00pm Total Marks: Instructions:		2015	
		70	
Ins	1 2	ons: . Attempt all questions Make suitable assumptions wherever necessary Figures to the right indicate full marks.	
Q.1	(a) (b)	Describe roll of management and roll of government in Industrial safety. Explain role of Safety Education and training in Industry.	07 07
Q.2	<ul><li>(a)</li><li>(b)</li></ul>	Describe importance of following in preventing accidents in industries; Plant Layout, Illumination, Ventilation, House- keeping. What do you know about internal and external accidents? Also explain about major and minor accidents in industry.	07 07
	<b>(b)</b>	OR Discuss causes of accidents in industrial plant.	07
Q.3	(a) (b)	Write short notes on (i) Boiler Act (ii) ESI Act.  Enlist basic parameters which form basis of Condition Monitoring Techniques in maintenance of industrial equipments? Explain in brief about any three Techniques.  OR	06 08
Q.3	(a) (b)	Differentiate between Emergency maintenance and Breakdown maintenance. How Industrial Psychology is helpful in preventing accident in Industries? Name the personal protective equipment for preventing accident.	06 08
Q.4	(a) (b)	Explain in details about usefulness of equipment life cycle for deciding maintenance activities. Draw Bath Tub Curve and show which part is important from maintenance point of view.  Discuss various outcome in terms of improved productivity achieved through better	07
	(D)	safety conditions in industrial plant.  OR	U /
Q.4	(a)	What is Total Productive Maintenance (TPM)? How does it differ from Total Quality Management (TQM)?	07
	<b>(b)</b>	State various methods of wear debris analysis. Explain any two of them in brief.	07
Q.5	(a)	List the personal protective equipments for following human body parts with IS Standards; (i) Head, (ii) Ear, (iii) Face, (iv) Eye, (v) Overall body, (vi) Foot and leg, (vii) fingers and hands.	07
	<b>(b)</b>	What is personal protective equipment? Explain different PPE used for different purpose and an importance of PPE.	07
Q.5	(a)	<b>OR</b> What is fault tree analysis and Root cause analysis? Explain in detail.	07
<b>~.</b> ~	(b)	What is thermal monitoring? Explain in brief about work of temperature sensitive tapes.	07

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