

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII • EXAMINATION – SUMMER • 2015

Subject code: 181905**Date: 05/05/2015****Subject Name: Industrial safety & Maintenance engineering****Time: 10.30AM-01.00PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is Industrial safety? Explain safety and Productivity. **07**
- (b) What is the roll of management and Government in industrial safety? Discuss Safety organizations. **07**
- Q.2** (a) How Industrial Psychology is helpful in preventing accident in Industries? Name the personal protective equipment for preventing accident. **07**
- (b) Write short notes on (i) Workman's compensation Act. **07**
(ii) Boiler Act (iii) Ergonomics.
- OR**
- (b) Describe the Engineering methods of controlling chemical hazards. **07**
- Q.3** (a) What is sound Maintenance system? Describe importance and benefits of sound Maintenance systems. **07**
- (b) Discuss Equipment Life cycle with Bath Tub Curve. **07**
- OR**
- Q.3** (a) What is Reliability and Availability? Explain the factors affecting Reliability and Availability. **07**
- (b) What is equipment breakdown? Explain the major causes of equipment breakdowns. **07**
- Q.4** (a) What is Total Productive Maintenance? Discuss Methodology and implementation of TPM. **07**
- (b) Write short notes on (i) Maintenance Categories. **07**
(ii) Maintenance Organizations and economics.
- OR**
- Q.4** (a) Discuss Principles and methods of Lubrication with suitable application. **07**
- Q.4** (b) Write short notes on (i) Preventive Maintenance (ii) Fault tree Analysis **07**
- Q.5** (a) What is Condition monitoring? Describe on-load and off load Testing. **07**
- (b) Write short notes on (i) Noise Vibration and harness analysis of machines. **07**
(ii) Temperature sensitive tapes
(iii) MTTR
- OR**
- Q.5** (a) Write Methods and instruments for Condition Monitoring with suitable example. **07**
- (b) Write short notes on (i) Measures for Maintenance Performance. (ii) Firefighting equipment (iii) MTBF. **07**
