

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PDDC SEMESTER VIII- EXAMINATION – SUMMER 2017**

**Subject Code: X81904****Date: 03/05/2017****Subject Name: Industrial Safety and Maintenance Engineering****Time: 10.30AM to 01.00PM****Total Marks: 7****Instructions:**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Draw neat sketches wherever necessary.**

- Q.1** (a) Discuss the role of management and role of Government in industrial safety. **07**  
 (b) Describe the factories act in detail with its importance. **07**
- Q.2** (a) Explain the following: Explosive Act and Boiler Act. **07**  
 (b) State and explain the benefits of sound maintenance systems. **07**
- OR**
- (b) Explain the control of industrial noise and protection. Also explain the code and regulations for worker safety and health. **07**
- Q.3** (a) List the instruments used for Condition Monitoring and explain any two of them. **07**  
 (b) Explain the personal protective equipment in detail. **07**
- OR**
- Q.3** (a) Explain the statement: Condition Monitoring is one of the best techniques used for maintaining the health of plant machineries and equipments in industries. **07**  
 (b) Explain the importance of education and training in safety and accident prevention. **07**
- Q.4** (a) State and explain the principles and methods of lubrication. **07**  
 (b) Write a note on: Fault Tree Analysis. **07**
- OR**
- Q.4** (a) State the different strategies/practices followed for maintenance in industries. Differentiate between breakdown maintenance and preventive maintenance. **07**  
 (b) Write a detailed note on: Total Productive Maintenance **07**
- Q.5** (a) Define and explain the following: Reliability, machine availability, MTBF, MTTF, MTTR and failure rate. **07**  
 (b) State and explain the objectives and principles of planned maintenance activity. **07**
- OR**
- Q.5** (a) Discuss the basic principles of maintenance planning. **07**  
 (b) Write a note on: Equipment Life cycle. **07**

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