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BME-030

**B.Tech. MECHANICAL ENGINEERING
(COMPUTER INTEGRATED MANUFACTURING)**

Term-End Examination, 2019

BME-030 : SAFETY ENGINEERING

Time : 3 Hours]

[Maximum Marks : 70

Note : Answer any seven questions. All questions carry equal marks.

1. (a) What is occupational safety ? Describe the reasons for risks to the safety and health of a worker in the workplace. [5]
- (b) Describe the role of protective gears for personnel and guards for equipment and machines in controlling injuries. [5]
2. (a) What is meant by environmental pollution ? Describe the pollutants of air and also discuss greenhouse effect. [5]
- (b) What are the soil pollutants and their effects ? Describe the pollutants of water and how they enter into water ? [5]

3. (a) Describe the provisions of the Factories Act, 1948. [5]
- (b) What is ISO 14000 series ? Describe its components and the documents included. [5]
4. (a) What are the different types of plastics that are used commercially ? What are the different products in plastics which are discarded as wastes ? [5]
- (b) Describe plastic recovery and discuss its viability. [5]
5. (a) Describe an Ideal safety organisation for a large scale industry. [5]
- (b) Explain various work related operations for which safety precautions are compulsory. [5]
6. (a) How should medical help and first-aid be provided in the workplace ? [5]
- (b) Define Hazard. How is hazard analysed ? [5]
7. (a) Describe the principles of gas detection in industrial environment. [5]

- (b) What is incineration ? What are the different incineration technologies ? What are the advantages of Rotary Kiln ? [5]
8. (a) What are the diseases commonly suffered by industrial workers ? [5]
- (b) Explain the importance of record-keeping on incidents of ill health and injuries in an industry.[5]

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