

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

Term-End Examination

December, 2015

BME-030 : SAFETY ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) "Safety alone is not the objective of safety engineering, health of worker should also be included in the objective." Justify the statement. 5
- (b) Explain the various work related operations that attract the safety precautions. 5
2. (a) Explain the importance of record-keeping on incidents of ill-health and injuries in an industry. 5
- (b) Describe the format of keeping record of work related injury, ill-health or death. 5

3. (a) How should medical help and first-aid be provided in the workplace ? 5
- (b) Define hazard. How is hazard analysed ? 5
4. (a) What are soil pollutants and their effects ? 5
- (b) What is meant by environmental pollution ? 5
5. (a) Describe the principles on which gas detection in industrial environment is made. 5
- (b) What are the documents included in ISO-14000 ? 5
6. (a) Discuss the role of UNO in protecting the environment. 5
- (b) What is a Ozone hole ? What suggestions were made by UNO to avoid Ozone layer depletion ? 5
7. (a) Critically analyse the mechanism of disposing solid waste. 5
- (b) What are landfill outputs ? Describe how they are managed. 5
8. (a) What are the effects of discarding batteries in the open ? 5
- (b) What is incineration ? What are the different incineration technologies ? What are the advantages of rotary kiln ? 5

9. (a) What preparations are to be made for recycling a waste ? 5
- (b) What is the role of protective equipment and clothing in avoiding hazards in workplace ? 5
10. (a) What are the reasons for earthquakes and cyclones ? 5
- (b) Write a note on Ganga Action Plan and other environmental schemes such as National River Conservation Directorate (NRCD). 5
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