

00394

**BACHELOR OF TECHNOLOGY IN  
MECHANICAL ENGINEERING  
(COMPUTER INTEGRATED  
MANUFACTURING)**

**Term-End Examination**

**June, 2010**

**BME-030 : SAFETY ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. (a) Explain the importance of safety in an organisation. List down the various benefits of the safety awareness programmes. 5
  - (b) What are the purposes of occupational health and safety acts ? 5
  2. (a) What is an accident ? What are the common causes of accidents ? 5
  - (b) Discuss Heinrich theory of accidents. 5
  3. (a) List human factors which may cause accidents. 5
  - (b) How are accidents prevented ? Explain with suitable examples. 5

4. (a) Describe any three principles on which gas detection in industrial environment is made. 5
- (b) What are safety audit functions ? What are guidelines to plan an audit of safety in an industry ? 5
5. (a) What is meant by ISO-14000 ? What are the documents included in ISO-14000 for an industry ? 5
- (b) Describe the safety provisions in Factory Act, 1948. 5
6. (a) How is site for landfill selected ? Describe how landfills are they managed ? 5
- (b) Describe different types of industrial waste. 5
7. (a) Define industrial and hazardous wastes. What general principles are followed for industrial waste disposal ? 5
- (b) How hazardous waste is managed ? 5
8. (a) List different hazards that exist in workplace. Explain any one of them. 5
- (b) What is lightening ? What damages does lightening cause and can these hazards be avoided ? 5

9. (a) What is Emergency Response Team (ERT) ? 5  
Explain concept of ERT networking and role  
of ERT in controlling emergency.
- (b) What is a disaster ? Distinguish between 5  
man-made and natural disaster.
10. (a) What is safety training ? Discuss the role of 5  
trainer and attributes of safety trainer.
- (b) What is Job hazard analysis and how is it 5  
used for safety training ?
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