

00367

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

**Term-End Examination**

**December, 2010**

**BME-030 : SAFETY ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any seven questions.*

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1. (a) Describe a safety organization for a large industry with respect to four levels of responsibility. 7
- (b) Make a list of work place operations that require safety. 3
2. (a) What are the factors that affect and control the occupational health ? 7
- (b) What ailment occur frequently in relation with occupation of an industrial worker ? 3
3. (a) What kind of pollution is caused by carbon dioxide gas ? Describe emitters of this gas and compare the ill effects of carbon dioxide with those of methane and nitrous oxide. 6

- (b) What is soil pollution and what are its effects ? 4
4. (a) Describe an environmental management system and its principal functions. 6
- (b) What is ISO 14001 standard and what steps does it require to be taken by an industry ? 4
5. (a) How is waste generated and is it classified ? 7
- (b) How would you describe solid waste management in urban India ? 3
6. (a) How air pollution is controlled in process of incineration of waste ? 6
- (b) Describe the process of pyrolysis for waste. 4
7. (a) What is an industrial waste ? What are the sources of solid waste ? 5
- (b) What characteristics make a waste hazardous ? What are short term and long term hazards ? 5
8. (a) What treatments are given to hazardous waste before it is finally disposed off ? 5
- (b) Describe final disposal of hazardous waste in which no combustion occurs. 5

9. (a) What are protective equipments which can save industrial workers form damage ? 5  
What steps are necessary in planning and implementation of such equipment ?
- (b) What are different forms of warning of an accident in an industrial environment ? 5
10. (a) What injuries can be attended in First Aid ? 5
- (b) What is a disaster ? Describe adverse effects of disaster. 5
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