

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

Term-End Examination

June, 2014

01410

BME-030 : SAFETY ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) What are the impediments in implementation of safety functions ? 5
- (b) What purposes are served by legislative Acts in respect of occupational health and safety ? 5
2. (a) How should medical help and first aid be provided in the workplace ? 5
- (b) How can the cost of accidents be reduced ? 5
3. (a) Define air pollutant. Name different air pollutants present in the atmosphere. Explain green house effect. 5
- (b) What is audit in respect of safety and health ? What are guidelines to plan an audit of safety in an industry ? 5

4. (a) Describe “Plan-Do-Check-Adjust” model of continual improvement of EMS. 5
- (b) Describe various ways in which environment is polluted. 5
5. (a) What are different types of wastes ? How is solid waste disposed off ? 5
- (b) What is aerobic microbial composting ? Distinguish it from vermiculture. 5
6. (a) Discuss and identify industrial solid waste. 5
- (b) What do you understand by household hazardous waste ? Give examples of HHW. Why is disposal of HHW costly despite its small quantity ? 5
7. (a) What is recycling ? What preparations are to be made for recycling a waste ? 5
- (b) How many types of plastics are used commercially ? What are different products in plastics which are discarded as waste ? 5
8. (a) What is meant by worker’s participation in framing safety rules ? What are the advantages ? 5
- (b) What is ERT ? What role does a local ERT play in controlling emergency ? What is external ERT ? 5

9. (a) What is a Safety Committee and who are its members ? How do safety committees help in promoting safety ? 5
- (b) Which incident promoted the law makers of New York State to legislate industrial compensation law ? How did the US Chamber of Commerce analyse Worker's compensation law in 1983 ? 5
10. Write notes on any *two* of the following : $2 \times 5 = 10$
- (i) Ganga Action Plan
 - (ii) Soil Pollution
 - (iii) EMS
 - (iv) Buddy System for Hazard Avoidance
 - (v) Safety Organisation
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