

**B.Tech. – VIEP – MECHANICAL ENGINEERING
(BTMEVI)**

Term-End Examination

00975

December, 2014

BIMEE-014 : SAFETY ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) What are the methods of detecting gaseous pollutants in industrial environment ? Describe the methods which detect CO₂, methane and SO₂. 7
- (b) What do you understand by land filling ? What are the different types of landfills ? How is a landfill designed and its size selected ? What chemical reactions occur in a landfill and what is the output ? 7
2. (a) Describe the types of accidents due to electricity and discuss the preventive measures. 7
- (b) Explain in detail how the industrial accident is connected with employees, employer, Government, society, product, processes and environment. 7

3. (a) Besides passing legislations, what role does the government play in respect of safety conditions in industry ? 7
- (b) Make a list of diseases which are likely to be caused by working in industry. What are the conditions that are found in work-place that can control the occupational health ? 7
4. (a) What are disasters ? Classify disasters and describe them in brief. 7
- (b) What do you understand by environmental pollution ? Give the list of pollutants of air. 7
5. (a) Discuss ISO 14000 for an industry. Also explain the legislation and its Acts. 7
- (b) Describe the industrial wastes. Also explain different methods of waste treatment. 7
6. (a) How is solid waste disposed off ? What is the solid waste scenario in Indian cities ? 7
- (b) The water released from the industrial process is not allowed to mix with general stream. What are the reasons ? Taking example of electroplating process, describe what contaminants will pollute water. 7
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