

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

Term-End Examination

June, 2018

00913

BIMEE-014 : SAFETY ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) What is the need of industrial safety ?
Explain the steps of industrial training for safety against electrical and fire hazards. 7
- (b) What are the methods of detecting gaseous pollutants in an industrial environment ? Describe the methods which detect CO₂, methane and SO₂. 7
2. (a) Describe the types of accidents due to electricity and discuss the preventive measures. 7
- (b) What are disasters ? Classify disasters and describe them in brief. 7

3. (a) How is solid waste disposed off ? What is the solid waste scenario in Indian cities ? 7
- (b) What chemical hazard risks do you foresee in industries involved in welding and foundry activities ? 7
4. (a) What are the precautions to be taken for safety in the workshop and laboratories of schools and colleges. Write any seven precautions. 7
- (b) What are the various safety steps to be taken for welding of pressure vessels and boilers in an industrial environment ? Explain in detail.
5. (a) Explain the provisions for safe working practices used in construction industries. 7
- (b) What are the factors required for the safe working environment ? Explain in detail. 7
6. (a) What is occupational stress ? What are the causes and impact of stress at the workplace ? 7
- (b) Explain the procedure for handling and storage of compressed explosive gas cylinders. 7

7. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Industrial waste
 - (b) Safety factors
 - (c) Recycling of waste
 - (d) Noise induced hearing loss
 - (e) Biological health hazards
 - (f) Safety training methods
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