

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

Term-End Examination

December, 2013

BIMEE-014 : SAFETY ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. Each question carries equal marks.

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1. (a) What is the need of safety training and education in educational institutions ? 7
(b) Explain the role of pneumatics and hydraulics in industries which have potential for fire hazard. 7
 2. (a) Explain the safety precautions taken during transportation of chemicals by commercial vehicles. 7
(b) Explain the role of symbols, signs and colour codes in implementation of safety standards in work place. 7
 3. (a) Discuss safety factors that must be considered during operation and maintenance of plants and equipments. 7
(b) Describe the role of ergonomics in maintenance of safety and productivity in industries. 7

4. (a) Explain different elements of safety of an organisation. 7
- (b) What is the difference between first aid and causality treatment? Explain different personnel protection equipments used for the safety in industry. 7
5. (a) Explain what role does factory inspectorate play in maintenance of safely standards in industry. 7
- (b) What are the objectives and salient features of safety audit? Explain in details. 7
6. (a) What are the essential components of hazard control programme? Explain in detail. 7
- (b) What are the safety recommendation and precautions for working in radiation prone environment? Describe. 7
7. Write short notes on the following : **3.5x4=14**
- (a) Lighting for safety in industry.
- (b) Eye protection and respiratory equipments.
- (c) Trade unions and safety.
- (d) Legal aspects of industrial safety.
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