

**B.Tech. – VIEP – MECHANICAL ENGINEERING  
(BTMEVI)****Term-End Examination****December, 2015****BIMEE-014 : SAFETY ENGINEERING***Time : 3 hours**Maximum Marks : 70*

---

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

---

1. (a) Can hazardous wastes be generated in homes ? What are the characteristic indicators that will define, if domestic waste is hazardous ? What steps can be taken in safe disposal of hazardous domestic waste ?  
(b) Make a list of operations performed by industrial workers that require safety. What are the benefits of practising safety programme ? 7+7
  
2. (a) Explain in detail the environment and health monitoring in industry.  
(b) What are the direct and indirect costs associated with accidents ? 7+7

3. (a) Explain the principle of ergonomics and interface design. Is ergonomics related to productivity? Justify.
- (b) What is safety training and why is it necessary? Discuss the attributes a trainer of safety should possess. 7+7
4. (a) Describe the various control and prevention techniques for electrical safety in industry.
- (b) Describe the various methods of fire detection with particular emphasis on automatic fire detectors. 7+7
5. (a) Discuss the Bhopal Gas Tragedy and bring out the lessons learnt.
- (b) Compare the potential environmental consequences of burning oil, burning natural gas and chemical hazards. 7+7
6. (a) What are the responsibilities of the safety officer and factory manager in case of a fatal accident during the manufacturing process?
- (b) Describe the safety in lifting machines with specific mentioning of cranes. 7+7
-