

**GUJARAT TECHNOLOGICAL UNIVERSITY****M.E –II<sup>st</sup> SEMESTER–EXAMINATION – JULY- 2012****Subject code: 1721709****Date: 14/07/2012****Subject Name: Environmental and Occupational Health and Safety****Time: 10:30 am – 13:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define and describe the following terms in brief: **07**  
(1) Occupational hazard (5) Risk & Risk analysis  
(2) Incident (6) Safety Audit  
(3) Continual Improvement (7) Emergency Plan  
(4) Occupational Health & Safety Management System  
(b) Describe the various causes of industrial accidents and explain approaches to prevent such accidents. **07**

- Q.2** (a) Describe in detail ISO 14001: Environmental Management System. **07**  
(b) What do you understand by first aid? Explain its principle. Describe the various events demanding first aid. **07**

**OR**

- (b) Explain the various agents responsible for different occupational diseases. Describe any one occupational disease in detail. **07**

- Q.3** (a) What are the requirements of safe guarding of Machine? Describe the causes and probable places of mechanical hazards and accidents. **07**  
(b) Enlist the different types of Personal Protective Equipments (PPE) and describe any two in detail. **07**

**OR**

- Q.3** (a) State the various advantages of good lighting and explain the principles of good lighting. **07**  
(b) Explain the objectives of emergency planning. Describe in detail onsite emergency plan. **07**

- Q.4** (a) Describe the various classes of fire and control measures for each classes of fire. **07**  
(b) Explain the Main safety measures to be followed for electrical work. **07**

**OR**

- Q.4** (a) What do you mean by Ergonomics? Give the application of ergonomics to improve the health and safety of the workers at work places. **07**  
**Q.4** (b) Describe stepwise the requirements of Occupational Health and Safety management system as per OHSAS 18001:2007. **07**

- Q.5** (a) Give the back ground of evolution of ISO 14000 series of standards. **07**  
(b) Describe in detail Audit programme, responsibility and resource procedure. **07**

**OR**

- Q.5** (a) Briefly describe the various standards included in ISO 14000 series. **07**  
(b) What do you understand by Environmental Audit? Describe it in detail. **07**

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