

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2018****Subject Code:2161305****Date:27/11/2018****Subject Name:Occupational Health and Safety****Time: 02:30 PM TO 05:00 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) Explain: (i) MSDS (ii) EHS (iii) LD₅₀ **03**
(b) State the various routes of entry of toxicants in to the human body. **04**
(c) Classify the various Occupation Health Hazards. **07**
- Q.2** (a) What are the five Es of accident prevention? **03**
(b) Explain the various Reasons for accident prevention. **04**
(c) Give the difference between (i) HAZOP & HAZEN (ii) PHA & FMEA. **07**
- OR**
- (c) Write a short note on “Threshold Limit Values (TLVs) and its significance”. **07**
- Q.3** (a) What do you mean by the term quantitative risk assessment **03**
(b) Discuss application of Ergonomics for safety and health. **04**
(c) Write a short note on “Fault Tree Analysis”. **07**
- OR**
- Q.3** (a) What are the Factors Impending Safety? **03**
(b) Explain the constituents of Ergonomics. **04**
(c) Write a short note on “Event Tree Analysis”. **07**
- Q.4** (a) Discuss the symptoms and precautions of Pneumoconiosis. **03**
(b) Explain the fire prevention activities. **04**
(c) What is Safety management? What are its objectives? **07**
- OR**
- Q.4** (a) Discuss the symptoms and precautions of Byssinosis. **03**
(b) Draw & explain the pyramid of fire. **04**
(c) Explain the concept & philosophy of Safety. **07**
- Q.5** (a) Discuss the major accidental hazards. **03**
(b) Discuss the various factors which affect the selection of PPE. **04**
(c) Explain the effect of electrical parameters on human body. **07**
- OR**
- Q.5** (a) State the main electric hazards. **03**
(b) Write down the need of personal protective equipment. **04**
(c) Write a short note on “Safety Measures for Electrical Work”. **07**
