

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019****Subject Code:2161305****Date:16/05/2019****Subject Name:Occupational Health and Safety****Time:10:30 AM TO 01:00 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) Describe the significance of Threshold Limit Value (TLV). **03**
(b) Explain the various routes of entry of toxicants in to the human body. **04**
(c) Give the classification of occupational health hazards. **07**

- Q.2** (a) Define: (i) Safety (ii) LD₅₀ (iii) MSDS **03**
(b) Explain the 5 E's for accident prevention. **04**
(c) Discuss the safety measures for electric works. **07**

OR

- (c) Explain the effects of electrical parameters on human body. **07**

- Q.3** (a) Draw & explain the pyramid of fire. **03**
(b) Explain the constituents of Ergonomics. **04**
(c) With the help of table explain classification of fire and extinguishers. **07**

OR

- Q.3** (a) State the causes of fire. **03**
(b) Give the application of Ergonomics for safety and health **04**
(c) What is explosion and give the classification of explosion. **07**

- Q.4** (a) Describe the functions of Health, Safety & Environment (HSE) department in an any industry. **03**
(b) Discuss the requisite characteristics of personal protective equipment. **04**
(c) Write a short note on factors impeding safety and Accident prevention. **07**

OR

- Q.4** (a) State the scientific safety management functions. **03**
(b) Write down the need of personal protective equipments. **04**
(c) Explain the various Reasons for accident prevention. **07**

- Q.5** (a) Define Pneumoconiosis as per International Labour Organization. Name the various types Pneumoconiosis. **03**
(b) Differentiate between HAZOP & HAZAN **04**
(c) Write a short note on Fault Tree Analysis along with the example. **07**

OR

- Q.5** (a) Discuss the various factors, which affect the development of Pneumoconiosis. **03**
(b) Write a brief note on Preliminary Hazard Analysis. **04**
(c) Give the procedure of HAZOP. **07**
