

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – VI• EXAMINATION – SUMMER 2016**

**Subject Code: 340502****Date: 12/05/2016****Subject Name: Safety and Hazard Management in Chemical Industries****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.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** (a) What is safety? Discuss the importance of safety in chemical industry. **07**  
(b) List out hazardous chemicals and write any two chemicals important characteristics. **07**
- Q.2** (a) Discuss the different color codes used for gas cylinders and pipelines. **07**  
(b) Write Short Note on Prevention of Diseases due to Chemical Effect. **07**
- OR
- (b) Write in brief about different personal protective devices. **07**
- Q.3** (a) Define Fire and Explosion and describe fire triangle. **07**  
(b) Write a short note on “Notified dangerous occupational health hazard.” **07**
- OR
- Q.3** (a) Write short note on sources of electrical hazards and reducing electrical hazards. **07**  
(b) Give Classification of different types of Fire in detail. **07**
- Q.4** (a) Write a short note on storage of hazardous chemicals. **07**  
(b) Discuss Industrial Plant Layout and Factors affecting it for safety. **07**
- OR
- Q.4** (a) Define Hazard and Hazard analysis. Describe PHA in brief. **07**  
(b) Write Short Note on Ventilation & Lighting in chemical industries **07**
- Q.5** (a) List out different methods of detail hazard analysis. Write about FMEA or HAZOP study. **07**  
(b) Give the Classification of chemical hazards and explain control of its. **07**
- OR
- Q.5** (a) Write full form of following. **07**  
1.FMEA 2.HAZOP 3.PHA 4.ETA 5.ISO 6.HAZAN 7.OHSAS  
(b) What is ISO ?Explain ISO-9001,ISO-14001,& OHSAS- 18001 **07**

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