

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2017**

**Subject Code: 160504**

**Date: 03/05/2017**

**Subject Name: Pollution Control & Safety Management**

**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) Explain Nitrogen cycle in detail. **07**  
(b) Explain in brief environment audit and energy audit. **07**
- Q.2** (a) Discuss equipments used to arrest the particulate matters from the effluent gas. **07**  
(b) Give the stepwise method of performing HAZOP. **07**
- OR**
- (b) List the various types of fire and explain the components of fire triangle. **07**
- Q.3** (a) What are the modes of entry of toxic chemicals into human body and Ways of preventing each of them? **07**  
(b) Give a brief account of hazardous waste disposal. **07**
- OR**
- Q.3** (a) What are the different pressure relief devices? Explain any two with neat sketch. **07**  
(b) Explain the effect of noise pollution on human beings. **07**
- Q.4** (a) Write a brief note on various personal protective equipments. **07**  
(b) **07**
- OR**
- Q.4** (a) What are the different ingredients of safety program to enhance the safety in process industries? Mention steps of safety audit. **07**  
(b) Discuss Dispersion model as a tool for Emergency planning. **07**
- Q.5** (a) Enlist the secondary wastewater treatments and explain any ONE in detail. **07**  
(b) Write the water, air and environmental protection act and rules with abatement. **07**
- OR**
- Q.5** (a) Write on Material safety Data sheet (MSDS). **07**  
(b) Explain the following terms as per Industrial Dispute Act: **07**  
1. Wages 2. Industry 3. Employer

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