

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VI Examination-Nov/Dec-2011

Subject code: 160504

Date: 28/11/2011

Subject Name: Pollution Control & Safety Management

Time: 10.30 am -1.00 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 Water and Nitrogen cycles in detail **07**
(b) Differentiate HAZOP, SAFETY AUDIT and WHAT IF analysis **07**
techniques based on Suitability to different phases of projects,
Amount of time, money and resources required.
- Q.2** (a) Explain ecology and discuss the impact of human interface on **07**
ecology alteration.
(b) Write in detail about different parameters used to develop **07**
Environment Impact Assessment (EIA).
- OR**
- (b) What are the specifications prescribed for drinking water quality in **07**
India? Discuss any three of them.
- Q.3** (a) Give analysis techniques used to develop fault tree analysis? Explain **07**
fault tree analysis in detail.
(b) Explain HAZOP technique with emphasis on guidewords, parameters **07**
and possible results.
- OR**
- Q.3** (a) Describe the air pollution control laws. **07**
(b) Give a brief account of hazardous waste disposal. **07**
- Q.4** (a) Describe the water pollution control laws. **07**
(b) Write brief note on effect of pollution. **07**
- OR**
- Q.4** (a) Plum' Vs. 'Puff' model of dispersion. Compare their applicability, **07**
characteristics and parameters.
(b) What are main features of factory act. **07**
- Q.5** (a) In the case of a nuclear reactor accident, which dispersion model you **07**
recommend? What parameters you will need to calculate radioactive
effluent dispersion?
(b) Explain various four personal protective equipments with its working **07**
principle and application.
- OR**
- Q.5** (a) Explain working principle, science and industrial application of **07**
Pressure Safety Valve and Rupture disc.
(b) Write brief note on wages and payment acts. **07**