

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 734301

Date: 30-12-2012

Subject Name: Environmental Geotechnology

Time: 10.30 am – 01.00 pm

Total Marks: 70

Instructions:

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Draw neat sketches with details where necessary.**

- Q.1 (a)** With a neat sketch, briefly explain contaminant movement from household to ground water. **10**
- (b)** What are hazardous waste? Which characteristics are used for classifying waste as hazardous waste? **04**
- Q.2 (a)** What is an importance of environmental geotechnology in civil engineering? **07**
- (b)** Explain meaning of “waste”. Enumerate different waste type. **07**
- Q.3 (a)** What is “NIMBY”? How it can be avoided? **07**
- (b)** Explain the importance of “Environmental Geotechnology” from view point of human health and pollution. **07**
- Q.4 (a)** Discuss foundation problem that have to be faced for structures placed on soil contaminated by acidic pollutants. **07**
- (b)** Differentiate diffusion from dispersion. With sketch describe dispersion in soil. **07**
- Q.5 (a)** Draw neat sketch of typical “Double lined” landfill. **07**
- (b)** Which are different stages involved in installation of monitoring well? Explain any one in detail **07**
- Q.6 (a)** Give mechanism of soil – water interaction. **07**
- (b)** How will you control landslides. Give remedial actions. **07**
- Q.7** What is radioactive nuclear waste? Give its characteristics and classification in detail. **14**
