

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2018****Subject Code: 2183509/2183512****Date: 30/04/2018****Subject Name: Environmental Management - III****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) Discuss application of Respiratory PPE and Non-Respiratory PPE in detail. **07**  
(b) Write short note on following:: **07**
- Carbon Footprint, Global Warming and Climate Change
  - Aquifer, Aquiclude and Aquitard
- Q.2** (a) Fill in the blanks: **07**
- CDM stands for .....
  - JI stands for .....
  - FMEA stands for .....
  - FTA stands for .....
  - UNFCCC stands for .....
  - NAAQS stands for .....
  - CEPI stands for .....
- (b) Find out the velocities of the ground water flow with the following data using **07**  
Slichter and Hazen's constant as 500 and 1000 respectively.  
Viscosity coefficient of water at ground water temperature of  $10^{\circ}\text{C} = 1$ .  
Effective size of particles in the aquifer = 0.1 mm.  
Hydraulic gradient = 1 in 80.
- OR**
- (b) In a field test, a time of 7 hours was required for a tracer to travel through an **07**  
aquifer from one well to another. The observation wells were 49 m apart and  
the difference in their water levels was found to be 0.49 m.  
Compute: (i) The discharge velocity  
(ii) The coefficient of permeability (K), given porosity is 20%.
- Q.3** (a) Write short notes on: **07**
- Factors of selection of PPE
  - Differentiate Permeability, Transmissibility and Intrinsic Permeability
- (b) Discuss components and Benefits of Continuous emission monitoring system **07**
- OR**
- Q.3** (a) What do you understand by Personal Protective Equipment? What are the **07**  
benefits of using PPE at work place?
- (b) Explain the term emission trading? How it can be used to control GHG emission? **07**
- Q.4** (a) Discuss the procedure of conducting "Public hearing" for EC in detail. **07**  
(b) Define Aquifers? Give a detailed classification of aquifers with the help of neat **07**  
diagram.
- OR**
- Q.4** (a) Explain "zones of underground water" with the help of neat diagram. **07**  
(b) What do you understand by HAZOP study? Discuss in detail. **07**
- Q.5** (a) Explain Fault tree Analysis in detail. **07**

(b) Discuss the importance of On-site emergency plan in detail. **07**

www.FirstRanker.com

www.FirstRanker.com

OR

**Q.5** (a) Explain Event tree Analysis in detail. **07**

(b) Discuss the four stages in the prior environmental clearance (EC) process for new projects? **07**

\*\*\*\*\*

www.FirstRanker.com