

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – 4 EXAMINATION – WINTER-2017

Subject Code: 3340504**Date: 13-11-2017****Subject Name: POLLUTION CONTROL & EFFLUENT TREATMENT****Time: 02:30 pm to 05:00 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** Answer any seven out of ten. **14**
1. Write down full form of BOD and COD.
 2. Define: Pollution.
 3. List out only types of pollution.
 4. Write down full form of TDS and TSS.
 5. Define pH.
 6. List out ambient air sampling methods.
 7. Define: Pollutant.
 8. Write down full form of ETP.
 9. List out water sampling methods.
 10. Write any two effect of noise pollution.
- Q.2** (a) Draw a sketch of cyclone separator. **03**
- OR
- (a) Explain gas absorption sampling method of ambient air. **03**
- (b) Draw a sketch of fabric filter. **03**
- OR
- (b) Explain composite sampling. **03**
- (c) Describe thermal incineration. **04**
- OR
- (c) Write any four effect of air pollution. **04**
- (d) Describe any one control method of sulfur dioxide emission. **04**
- OR
- (d) Describe any one control method of nitrogen oxide. **04**
- Q.3** (a) Describe removal of pollutants by coagulation. **03**
- OR
- (a) Explain pretreatment of waste water. **03**
- (b) Explain reverse osmosis. **03**
- OR
- (b) Describe removal of pollutants by filtration. **03**
- (c) Explain trickling filter. **04**
- OR
- (c) Distinguish waste water sampling methods. **04**
- (d) Explain any two characteristics of water. **04**
- OR
- (d) Describe procedure for environmental audit. **04**

- Q.4** (a) Explain sanitary land filling method of solid waste disposal. **03**
OR
- (a) Classify solid waste. **03**
(b) List out norms of GPCB for potable water. **04**
OR
- (b) Explain thickening method for sludge processing. **04**
(c) Describe effluent treatment plant with schematic block diagram. **07**
- Q.5** (a) Discuss benefits of ISO 14001. **04**
(b) Explain Ion Exchange for removal of dissolved solids. **04**
(c) Explain effect of land pollution. **03**
(d) Write down importance of pollution control in chemical industry. **03**

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