

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
