

**B.Tech. CIVIL ENGINEERING (BTCLEVI)**

**Term-End Examination**

**June, 2017**

**00854**

**BICEE-024 : ADVANCED ENVIRONMENTAL  
ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

---

**Note :** Answer any **five** questions. All questions carry equal marks. Assume suitable data, if missing.

---

---

1. (a) What do you understand by self-purification of natural waters ? How is it different from water treatment ? 8
- (b) What happens to the quality and quantity of natural water when a polluted stream is disposed off into it ? 6
2. (a) Explain the effect of temperature on deoxygenation of water. 6
- (b) How can taste and odour be removed from water ? Explain in detail. 8
3. (a) What are tube settlers ? Explain using relevant sketch. 6
- (b) Describe the operation of microfilters, using a neat sketch. 8

4. (a) What is the necessity of disinfection of water? 4
- (b) What are the characteristics of an ideal disinfectant? 6
- (c) Name some commonly used disinfectants. 4
5. (a) What is biofiltration and how does it work? 6
- (b) How can materials be recovered from effluent processing? Describe using some examples. 8
6. (a) What are the harmful effects of sulphur dioxide pollution and how can such pollution be controlled? 7
- (b) What are the harmful effects of hydrocarbons and how can they be controlled? 7
7. (a) Describe the decibel scale used for measurement of noise level. 7
- (b) Discuss the various instruments and techniques used for noise measurement. 7
-