

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

June, 2018

00153

BICE-018 : ENVIRONMENTAL ENGINEERING – II

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **five** questions. All questions carry equal marks.*

1. (a) Define Sewer. Explain the necessity of an appropriate sewerage system. 7
- (b) Differentiate between combined and separate sewerage systems. 7
2. Write a detailed note on various sewer appurtenances with neat sketches. 14
3. (a) What do you understand by DO Sag curve ? Explain with the help of a well-labelled sketch. 7
- (b) Write a note on the various zones that develop in a river after the addition of a polluted stream. 7

4. (a) Differentiate between trickling filter and activated sludge process. 7
- (b) Write short notes on oxidation ditches and aerated lagoons. 7
5. (a) Differentiate between aerobic and anaerobic treatment of sludge. 7
- (b) Explain the UASB technique in detail. 7
6. (a) Discuss the various ways in which we can reuse the treated effluents from a wastewater treatment plant. 7
- (b) Differentiate between municipal and industrial wastewater. 7
7. Write short notes on each of the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Sewage Pumping
- (b) Oxidation Pond
- (c) Common Effluent Treatment Plant
- (d) Sewer Maintenance
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