

# CBCS SCHEME

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15BT563

## Fifth Semester B.E. Degree Examination, Dec.2018/Jan.2019 BT for Sustainable Environment

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Describe different types of water pollutants with their sources. (08 Marks)  
b. How would you measure different waste water quality and different standard discharge? (08 Marks)

OR

- 2 a. Describe the physical, chemical and biological characteristics of waste water. (08 Marks)  
b. Write a note on Primary wastewater treatment. (08 Marks)

### Module-2

- 3 a. Explain Activated Sludge process. (08 Marks)  
b. Write explanatory notes on wastewater treatment in distillery. (08 Marks)

OR

- 4 a. Write short notes on :  
i) Ion exchanger                      ii) Reverse osmosis. (08 Marks)  
b. How wastewater is treated in textile industry? (08 Marks)

### Module-3

- 5 a. What are the effects of Air pollutants on health and vegetation? (08 Marks)  
b. How can you analyze NO<sub>x</sub> and SO<sub>2</sub>? (08 Marks)

OR

- 6 a. Explain the method of stack sampling, with detailed diagram. (08 Marks)  
b. Write a case study that leads us to a noise free environment. (08 Marks)

### Module-4

- 7 a. What is a Conventional fuel? List out the environmental impact of a conventional fuel. (08 Marks)  
b. Discuss about renewable and non – renewable energy sources. (08 Marks)

OR

- 8 a. Briefly explain the process of methanol production from organic waste. (08 Marks)  
b. List out the process of production of low – BTU gas. (08 Marks)

### Module-5

- 9 a. How solid waste is being generated? Explain different types of solid wastes. (08 Marks)  
b. How solid wastes can be managed through biotechnological processes? (08 Marks)

OR

- 10 a. Discuss in detail the treatment process of petroleum wastes. (08 Marks)  
b. Write short notes on Solid waste management in :  
i) Textile industry                      ii) Pharmaceutical industry. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.