CBCS Scheme

USN | | | | | | | | | | |

16/17BBT24

Second Semester M.Tech. Degree Examination, June/July 2018
Environmental Biotechnology

Time: 3 hrs. Max. Marks: 80

Note: 1. ***Answer any FIVE full questions, choosing one full question from each module.***
2. ***Draw neat sketches, wherever necessary.***

Module-1

1 a. Discuss the significance of GHGs and carbon footprint. **(08 Marks)**
b. Elaborate the sources and effects of water and air pollution. **(08 Marks)**

OR

2 a. Analyze the importance of microbes in degradation of polyaromatic hydrocarbons and pesticides. **(08 Marks)**
b. Describe the process of microbial desulphurization of coal. **(08 Marks)**

Module-2

3 a. Discuss the solid waste management in landfills. **(08 Marks)**
b. Explain the waste management in leather tanning industries. **(08 Marks)**

OR

4 a. Elaborate the photochemical reactions in detail. **(08 Marks)**
b. In detail, discuss the design of gravity settlers and cyclones. **(08 Marks)**

Module-3

5 a. Differentiate between suspended and attached growth processes with examples. **(08 Marks)**
b. Discuss the stoichiometry of anaerobic digestion. **(08 Marks)**

OR

6 a. Describe the process for handling of hazardous wastes from bioprocess industries. **(08 Marks)**
b. Elaborate the process of anaerobic digestion of waste. **(08 Marks)**

Module-4

7 a. Discuss the working principle of GCMS. **(08 Marks)**
b. Describe the different types of environmental sensing techniques. **(08 Marks)**

OR

8 a. Explain the principle of HPLC. **(08 Marks)**
b. Elaborate various electro analytical techniques. **(08 Marks)**

Module-5

9 a. Discuss the necessity of ISO certification. **(08 Marks)**
b. In detail, explain environmental auditing process. **(08 Marks)**

OR

10 a. Write a detailed note on sustainable development. **(08 Marks)**
b. Discuss the methodologies of EIA. **(08 Marks)**

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