

SUBJECT : ENVIRONMENTAL BIOTECHNOLOGY

W-2018-1210

Time : 10.00 AM TO 01.00 PM
Max. Marks : 60

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.

Q.1 Attempt **ANY FIVE** of the following: **[10]**

- Define the term Xenobiotics.
- Write the effects of noise pollution in human health.
- Write the basic concepts of environment.
- Mention any four methods of water pollution monitoring.
- Write about aerobic biofilms.
- Explain sources of air pollution and their control.

Q.2 Answer the following: **[10]**

- Write an account of biotechnological approaches for reducing environmental impact of pesticides.
- Discuss the conventional methods of primary and secondary treatment of sewage.

Q.3 Explain the following: **[10]**

- Drinking water standards used in India.
- Detection and control of microorganisms in fresh water.

Q.4 Write short notes on **ANY TWO** of the following: **[10]**

- Activated sludge process.
- Aerated lagoon.
- Microbes in wastewater treatment

Q.5 Attempt the following: **[10]**

- a) What is hazardous waste? Discuss their impact on human health.
- b) Describe the genetically modified organisms for improving the environment.

Q.6 Answer **ANY TWO** of the following: **[10]**

- a) Define acid rain. Write about the causes and effect of acid rain.
- b) Discuss the merits and demerits of bioremediation.
- c) Describe the methods of composting of solid waste.

Q.7 Write short note on the following: **[10]**

- a) Carbon credit.
- b) Biostimulation.

Q.8 Answer the following: **[10]**

- a) What is meant by solid waste management? Discuss the process with respect to characteristics features, types and treatment options.
- b) Define desalination. Mention various techniques used in this process. Add a note on byproducts and industrial application of desalination.

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