

Pages: 4
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Paper ID : 154612 Roll No.

B.TECH.

Theory Examination (Semester-VI) 2015-16

ENVIRONMENTAL BIOTECHNOLOGY

Time : 3 Hours

Max. Marks : 100

Section-A

Q.1 Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

- Define the term pollution and its types.
- How do rotatory biological reactors work?
- What do you understand by the term Solid waste Management?
- Define the term Biomarkers and Bio-indicators.
- What the factors that affect the anaerobic process?

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Define the term methanogenesis and activated sludge.

Section-B

Q2. Attempt any five parts. All parts carry equal marks:

(5×10=50)

- (a) What are the harmful effects of air and water pollution on ecosystem?
- (b) What are trickling filters? Describe them with the help of a suitable diagram and also write the formation of biofilms over trickle beds.
- (c) Name some important alternative fuels that are renewable sources of energy. Explain in brief.

process safe for the environment?

- (b) What are steps involved in the primary treatment of waste water.

Section-C

Note: Attempt any two questions from this section.

(2×15=30)

- Q3.** Estimation of total volatile components and lignin in a given known sample.
- Q4.** "Activated sludge process is an aerobic biological process in the treatment of waste water". Explain in detail with significant diagrams and the growth kinetics involved.



FirstRanker's choice efficient steps towards management of solid waste. Write about the bioreactors which help in this process.

- (b) Give details of thermal and biological conversion of solid waste.

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