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(ii) What is the nature of effluents in sugar industry?
Explain the treatment schemes of waste water generated from this industry.

(iii) Discuss the concept of biosensors with suitable examples.

4. Attempt the following (**any three**) : (5×3=15)

(i) What are the biotechnological approaches for air pollution abatement?

(ii) Write note on Water Pollution Act 1974.

(iii) Discuss biodegradation of pesticides with one example.

(iv) Highlight the key features of Brundtland Report.

5. Answer the following : (5×3=15)

(i) Enlist the differences between: Trickling filter and Anaerobic filter

(ii) What are the causes and consequences of acid rain?

(iii) Write a concise note on fluidized bed and fixed bed bioreactor.

(100)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4635

J

Unique Paper Code : 2164002002

Name of the Paper : Environment Biotechnology
and Management

Name of the Course : **Botany**

Semester : III

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Question paper contains **five** questions.
3. Attempt **four** questions in all. Question No. 1 is compulsory.
4. All parts of a question should be answered together. Draw diagrams wherever required.

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1. (i) Expand the following (**any five**) : (1×5=5)

- (a) IUCN
- (b) TDS
- (c) CPCB
- (d) COP
- (e) NEP
- (f) WCED

(ii) Define (**any five**) : (1×5=5)

- (a) Sludge
- (b) Bioprospecting
- (c) Rhizofiltration
- (d) Phytoremediation
- (e) Sparger
- (f) Volatile organic compounds

(iii) Give one-word answer for the following (**any five**) : (1×5=5)

- (a) The amount of oxygen needed to chemically oxidize organic and inorganic matter in a water sample.

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(b) A greenhouse gas.

(c) The process where a water body becomes enriched with nutrients, such as nitrogen and phosphorus, leading to excessive plant and algae growth.

(d) A bioindicator for gaseous pollution.

(e) Chemical substance found within a living organism that is not naturally produced by that organism.

(f) A bacterium known as superbug.

2. Write short note (**any three**) : (5×3=15)

(i) Biomagnification and Bioconcentration

(ii) Rio Earth summit and its declaration

(iii) Bioprospecting

(iv) Bioaccumulation of metals

3. Attempt **any two** (7.5×2=15)

(i) Explain the principle, working and applications of UASB with suitable diagrams.

P.T.O.