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RN-3833

M. Sc. (Integrated Biotechnology) (Sem. VI) Examination

May / June – 2010

IBT 604 : Environmental Biotechnololgy

(Old Course)

Time : **3** Hours] [Total Marks : **70**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. Sc. (Integrated Biotechnology) (Sem. 6)**

Name of the Subject :

☛ **IBT 604 : Environmental Biotechnology (Old Course)**

☛ Subject Code No. : **3 8 3 7** ☛ Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.
(4) Both sections must be written in **separate** answer books.

SECTION-I

1 Answer the following : **5**

(1) Give the significance of coagulation during primary water treatment.
(2) What is captive breeding ?
(3) Define : Xenobiotics
(4) What is zoogleal film ?
(5) What is bioremediation ?

2 What is composting ? Elaborate a note on composting. **10**

OR

2 Enlist the treatments use of sewage water. Explain in detail conventional methods for sewage treatment. **10**

3 Describe briefly about the different techniques used in phytoremediation. **10**

OR

3 Describe in detail techniques of Bioremediation. **10**

4 Write short notes : (any **two**) **10**
(a) Role of enzymes in waste water treatment
(b) Trickling filter : construction and biochemistry
(c) Degradation of Aromatic hydrocarbons.

SECTION-II

1 Define the terms : **5**
(1) Biopesticide
(2) Biodiversity
(3) Micropropogation
(4) Biosensor
(5) Biofertilizer.

2 Discuss the role of biotechnology in preservation of biodiversity with suitable example. **10**

OR

2 Enlist the threatened species and discuss in detail the major factors affecting to loss of biodiversity. **10**

3 Explain in detail various methods involved in metals recovery from low grade ore. **10**

OR

3 Elaborate a note on "Methods for conservation of Biodiversity". **10**

4 Write short notes on : (any **two**)
(a) Cellular and metabolic aspects of biotechnology
(b) Micropropagation : a remedy for reforestation
(c) Biodegradation process.