

D 51543

(Pages 2)

Name.....

Reg. No.....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2013

(UG-CCSS)

Biotechnology – Complementary Course

BT 3C 02—ENVIRONMENTAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 30 Weightage

I. Objective type question. Answer *all* questions :

A Name the following :-

- 1 An aquatic plant used in waste water treatment.
- 2 An indicator of water pollution by sewage.
- 3 Lead toxicity disease.
- 4 An organophosphorus pesticide.

B State whether true *or* false :

- 5 Malathion is an Xenobiotic compound.
- 6 Minamata disease was caused due to Cadmium contamination.
- 7 The Torry canyon disaster was not a cause of oil pollution.
- 8 Bioventing is an *in situ* remediation technology that uses micro-organisms to biodegrade organic constituents on soils.
- 9 Oxygen is a green house gas.
- 10 Ozone layer is present in stratosphere.
- 11 Spirulina is an SCP.
- 12 Biocoenoses developing within the trickling bed reactor is an advantage.

(12 x = 3 weightage)

II. Short answer questions. Answer *all* questions :

- 13 Biosorption.
- 14 Aeration ponds.
- 15 Pesticide disposal using fungi.
- 16 Bioreactors for biosorption.

Turn over

- 17 **Bioaugmentation.**
- 18 **Green house effect.**
- 19 **BTEX.**
- 20 **Acid rain.**
- 21 **Eutrophication.**

(9 x 1 = 9 weightage)

**III. Short essay or paragraph questions. Answer any five questions :**

- 22 **Air pollution and its control.**
- 23 **Biodegradation of petrochemical effluents.**
- 24 **Bioscrubbers.**
- 25 **Biological indicators of pollution.**
- 26 **Anaerobic reactors used in effluent treatment.**
- 27 **Removal of nitrogen from waste water.**
- 28 **Motor vehicle pollution control strategies.**

(5 x 2 = 10 weightage)

**IV. Essay questions. Answer any two :**

- 29 **Illustrate current status and novel trends in environmental biotechnology.**
- 30 **Detail bioremediation types and advantages.**
- 31 **Causes, effects and control of water pollution with special emphasis to nitrogen and phosphorus pollution.**

(2 x 4 = 8 Weightage)