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 Spirullina 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 Acration ponds.

15 Pesticide disposal using fungi.

16 Bioreactors for biosorption.

Turn over

17 Bioaugumentation.

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 controll.

23 Biodegradation of petrochemical efluents.

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 phosphoro pollution.

(2 x 4 = 8 Weighta