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(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2014**

(U.G.—CCSS)

Complementary Course—Biotechnology

BT 3C 02—ENVIRONMENTAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 30 Weightage

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

(A) Name the following :—

- 1 An *in situ* remediation technology that uses microorganisms to biodegrade organic constituents adsorbed on soils.
- 2 Lead toxicity disease.
- 3 An organophosphorus pesticide.
- 4 Example for a green house gas.

(B) State whether true or false :

- 5 Minamata disease was caused due to Cadmium contamination.
- 6 The Torry canyon disaster was not a cause of oil pollution
- 7 Bioventing is an *ex situ* remediation technology that uses microorganisms to biodegrade organic constituents adsorbed on soils.
- 8 Lichen are biomonitors used to check air quality.
- 9 High soil moisture soils reduce bioventing performance.
- 10 Sulfurous acid is formed in the atmosphere due to automobile emission.
- 11 Spirullina is an excellent choice for use as SCP.
- 12 PCB is an organophosphorus pesticide.

(12 × ¼ = 3 weightage)

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

- 13 Radio active waste.
- 14 CFC's
- 15 Traffic pollution control strategies.
- 16 Biodegradation of petrochemical effluents.

Turn over

- 17 Use of fungi for biosorption technologies.
- 18 Advantages of bioremediation.
- 19 Hazardous waste.
- 20 *In situ* bio-remediation technologies.
- 21 Composting.

(9 × 1 = 9 weightage)

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

- 22 Causes and effects of acid rain.
- 23 Mechanism of pesticide degradation.
- 24 Global warming.
- 25 Eutrophication.
- 26 Biological indicators of pollution.
- 27 IMViC test.
- 28 Solid waste management.

(5 × 2 = 10 weightage)

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

- 29 Describe causes and effects of climate change.
- 30 Illustrate current status and novel trends in environmental biotechnology.
- 31 Detail causes effects and control of air pollution

(2 × 4 = 8 weightage)