D 72434 (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 x 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 x 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 x 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 x 4 = 8 weightage)