

## THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2012

(CCSS)

## Biotechnology

## BT 3C 02—ENVIRONMENTAL BIOTECHNOLOGY

Tim? : Three Hours

Maximum : 30 Weightage

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

## A Match the following :

- |                    |                   |
|--------------------|-------------------|
| 1 Torrey canyon    | Lead poisoning    |
| 2 DDT              | Detoxification    |
| 3 PCB              | Cadmium poisoning |
| 4 Metallothioneins | 2 chloronathlene  |
| 5 Itai-Itai        | Organochlorine    |
| 6 Plumbism         | Oil spill         |

B State whether True *or* False :

- 7 The acidity of rain is  $\leq$  pH 5.7, it is called as Acid rain.
- 8 **Eutrophication** causes decreased algal blooms.
- 9 **Biomagnification** does not occur for **Xenobiotics**.
- 10 Pollutants like hydrocarbons are carcinogenic.
- 11 Increased UV-B radiation may lead to melanomas.
- 12 Sound intensity **between** 90-100 decibels is not critical for ear damage.  
(12 x  $\frac{1}{4}$  = 3 weightage)

H. Short answer type questions. Answer *all* nine questions.

- 13 **Geiger-Müller** counter.
- 14 PCBs.
- 15 DDT.
- 16 **PAHs**.
- 17 **Biofouling**.
- 18 Green house effect.
- 19 Acid rain.
- 20 Carbon credits.
- 21 Deforestation.

x 1 = 9 weightage)

Turn over

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

22 Oil slicks and their environmental effects.

23 ~~Biosorption~~.

24 Hydrocarbon degradation.

25 Radioactive pollution.

26 Ozone depletion.

27 Mercury pollution.

28 Types of ~~bioremediation~~.

(5 x 2 = 10 weightage)

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

29 Write briefly on air pollution and its control.

30 Discuss the removal of phosphorous from waste water.

31 Explain the role of microbes in degradation of petrochemical effluents.

(2 x 4 = 8 weightage)