

**T.Y.B.SC. SEM – VI (CBCS - 2016 Course) : SUMMER - 2019**  
**SUBJECT : ELECTIVE : a) ENVIRONMENT CHEMISTRY-II**

Day : Wednesday  
Date : 24/04/2019

Time : 03.00 P.M. To 06.00 P.M  
Max. Marks : 60

**S-2019-0929**

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat labelled **DIAGRAMS** wherever necessary.

**Q.1** Attempt **ANY TWO** of the following: **(12)**

- a) Describe any two techniques of integrated pest management. What are the strong and weak points of each?
- b) Illustrate soil profile with a neat labelled diagram. Explain each horizon in detail.
- c) Discuss the potentiality of solar energy in detail.

**Q.2** Attempt **ANY TWO** of the following: **(12)**

- a) Explain the difference between pyrolysis and incineration as a method of solid waste disposal.
- b) Describe the chlor-alkali industry for its mercury pollution.
- c) What is the meaning of NPU in respect of proteins? Distinguish between animal origin proteins and plant origin proteins.

**Q.3** Attempt **ANY TWO** of the following: **(12)**

- a) Explain the equation for solid waste impact is population x affluence x technology. Give suitable examples.
- b) Explain the most disastrous case of environmental mercury poisoning "Minamata disease".
- c) Explain the role of vitamins and minerals, fats and carbohydrates in the human diet.

**Q.4** Attempt **ANY THREE** of the following: **(12)**

- a) Classify the main categories of solid waste and discuss each category in detail.
- b) Write short notes on (**any two**)  
a) Sanitary landfills    b) Biodegradation    c) Bio-amplification
- c) Write a short note on "mode of action of pesticides".
- d) Compare reclamation, recycling and reuse in terms of entropy ethic.

**Q.5** Attempt **ANY FOUR** of the following: **(12)**

- a) What is the importance of the demographic transition?
- b) What do you mean by "Green revolution"? Explain.
- c) Give an account of "Kraft pulping" involved in the working of paper mills.
- d) Discuss the importance of "nuclear fuels" in brief.
- e) What are organic and inorganic nutrients present in soil? Give suitable examples.
- f) What precautions must be taken before a pesticide can be produced and used commercially?

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