

BACHELOR OF SCIENCE (CBCS - 2016 COURSE)
T. Y. B Sc. Sem-VI :SUMMER- 2022
SUBJECT : CHEMISTRY : ENVIRONMENT CHEMISTRY-II

Day : Thursday
Date : 14-07-2022

S-15058-2022

Time : 11:00 AM-02:00 PM
Max. Marks : 60

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) Justify describing the sun as “an ideal energy source.” What are the disadvantages of solar energy?
- b) Illustrate the nitrogen pathways in soil. What are macro and micro-nutrients? Explain in brief.
- c) Why is protein quality so important? What determines it? Name one disease caused by lack of quality protein.

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

- a) How do you propose solid waste management? Discuss the merits and demerits of any two method proposed.
- b) Give an account of the principles of nuclear fission and fusion. Compare their efficiencies as energy source.
- c) Describe the two main processes for pulping wood to form paper. What are the problems in recycling of cellulose fibre?

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

- a) Write a short note on “Minamata disease”.
- b) Describe the successes and problems of the “Green Revolution” in detail.
- c) Write notes on : (**any two**)
 - a) Gasohol
 - b) Solar cell
 - c) Fuel cell

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

- a) Write a short note on “Sanitary Landfill” method for waste disposal.
- b) Give an account of persistence of pesticides. Give its impact on crop yield and human health.
- c) What is the difference between axonic and synaptic transmission of nerve impulses? Which of these types of nerve transmission is affected by DDT?
- d) Explain the solid waste impact in terms of “Population, Affluence and Technology”.

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

- a) Give an account of the principle of “Entropy ethics and solid waste”.
- b) Describe acid-base and ion-exchange reactions in soil.
- c) Describe the chlor-alkali industry for its mercury pollution.
- d) Discuss any two techniques of integrated pest management in brief.
- e) Define the terms “Reclamation, recycling and reuse”.
- f) Describe various sources of industrial water pollution in detail.