(Pages : 2) **J – 4105**

Reg. No. : .....

Name : .....

Second Semester M.Sc. Degree Examination, May 2020

Branch : Environmental Sciences

ES 221 : ENVIRONMENTAL CHEMISTRY

(2018 Admission onwards)

Time : 3 Hours Max. Marks : 75

I. Answer any **ten** of the following in brief :

1. Photochemical smog
2. Soil profile
3. Biomagnification
4. Nuclear fission and fusion
5. Polychlorinated Biphenyls
6. Radioactive nucleus decay
7. Chemical oxygen demand
8. Emerging contaminants
9. Electrical conductivity
10. Isotopes
11. Soil texture and soil structure
12. Nitrogen cycle

(10 × 2 = 20 Marks)

P.T.O.

II. Answer any **five** of the following :

13. Briefly explain about bioaccumulation and biomagnification of pollutants.

14. Discuss the major consequences of global warming.

15. Write a note on organochlorine pesticides and its contamination in the environment.

16. Briefly explain about the organic matter content in water.

17. Discuss about integrated pest management and its significance.

18. Briefly explain about primary and secondary pollutants with suitable examples.

19. Explain about the causes and consequences of acid rain.

(5 × 5 = 25 Marks)

III. Answer any **three** of the following :

20. Discuss about radioactive pollution. Explain its causes, effects and prevention measures.

21. Explain the physical and chemical properties of soil and the role of macro and micronutrients in maintaining the soil health.

22. Critically discuss about indoor air pollution with its sources, effects and control measures.

23. Explain the following :

    (a) Green house gases and their sources

    (b) Ozone depletion

    (c) Mode of action and degradation of pesticides in environment.

(3 × 10 = 30 Marks)

———————