Third Semester B. Sc. (Part - II) Examination

ENVIRONMENTAL SCIENCE

Paper - V

(Environmental Chemistry and Instrumentations)

Time : Three Hours] [Max. Marks : 50

N. B. : (1) All questions are compulsory.
(2) All questions carry equal marks.

1. Discuss the physical properties of water w.r.t. viscocity and surface tension. 10

OR

(a) What are the consequences of over exploitation of water ? 5

(b) Write a brief note on balance of dissolved material in ocean. 5

2. Explain the process of green house effect. What are the implications of green house effect ? 10

OR

(a) Write explanatory note on chemical species and particulates in the atmosphere. 5

(b) Mention the various stages of ozone cycle. 5

3. Explain the theory of turbidometry. What are its applications in environmental studies ? 10

OR

(a) What are the different types of electrodes ? 5

(b) Explain the method for measurement of conductance. 5

4. Discuss the principle of gas chromatography. What are its application in environmental analysis ? 10

OR

(a) Explain Lambert's and Beer's law. 5

(b) What is the principle of flame photometry ? 5

5. Answer any **ten** :—

(i) What is the salinity of the water ?

(ii) Give the zonation of sub surface water ?

(iii) What is an Estuary ?

(iv) Enlist green house gases.

(v) What are CFCs ?

(vi) Name the layer where the ozone layer is present

(vii) What is the unit of measurement of conductivity ?

(viii) What is a redox potential ?

(ix) Give any two applications of pH meter.

(x) Distinguish between stationary and mobile phase.

(xi) What is R_f ?

(xii) Name the instrument which is used for the estimation of sodium and potassium ? 1×10=10