

15112

M.Sc. DEGREE EXAMINATION, NOVEMBER 2016.

FIRST SEMESTER

Environmental Science

Paper II — ENVIRONMENTAL CHEMISTRY AND INSTRUMENTATION

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Stoichiometry
2. Soil Profile
3. NO_x
4. DDT
5. BOD
6. Potability of water
7. Colourimetry
8. X-ray diffraction.

PART B — (4 × 15 = 60 marks).

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Explain the photochemical reactions in the atmosphere.
Or
10. Explain the chemistry of ozone layer and its effects on the environment.
11. Discuss the role of pesticides on soil pollution.
Or
12. Explain the following :
 - (a) Macro nutrients
 - (b) C/N ratio.

13. Explain the sources and effects of radio active compounds on the aquatic environment.

Or

14. Discuss the types of catalysts and their role in green chemistry.

15. Write the principle and working procedure of HPLC with suitable examples.

Or

16. Explain the principle and working procedure of AAS.

