

**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University) Coimbatore-641043.**

**Master's Degree Examination November – 2018
III Semester**

**Class : II PG
Major : Chemistry**

**Time: 3 hours
Max. Marks: 60**

17MCHC18– Environmental chemistry (Self study)

Part A

10 x 1/2 = 5

Choose the correct answer

- Biosphere includes
a. hydrosphere only b. lithosphere only c. atmosphere only d. all of these.
- Photo chemical Smog is related to the pollution of
a. Soil b. Water c. noise d. air
- The non – living components of the environment comprises the hydrosphere is
a. air b. land c. plants d. Water.
- Which is most harmful for life on the globe?
a. Deforestation b. Soil erosion c. Increasing desert d. Nuclear – fall out.
- When huge amount of sewage is dumped in a river, the BOD will
a. increase b. remain unchanged c. decrease d. increase or decrease.
- _____ is an index of the waste (organic and inorganic) of water which can be oxidised by a Strong oxidising agent usually acidified $K_2Cr_2O_7$.
a. BOD b. DO c. TOC d. COD
- Which air pollutant is not released by scooters and cars?
a. SO_2 b. hydrocarbons c. CO d. Fly ash.
- The P^H of normal rain water is
a. 0.1 b. 3.5 c. 4.6 d. 5.6
- Pollution can be controlled by
a. Sewage treatment b. manufacturing electricity operated vehicles
c. adopting green chemistry d. all of these
- Taj Mahal is threatened due to the effect of
a. Chlorine b. Sulphur dioxide c. Oxygen d. Hydrogen.

Part B

5 x 4 = 20

Answer ALL questions

Each answer should not exceed 200 words or one page

11.a. What are the sources of CFC's? Explain its environmental effect.(Or)

11.b. What is green house effect? What are the adverse effects caused by it?

12.a. Describe the different regions of atmosphere. (Or)

12.b. What do you mean by Fluorosis? Mention its symptoms. How is it controlled?

13.a. Write in detail about the process of determination of COD of Water. (Or)

13.b. Explain the method of analysis of CO by using Gas chromatography.

14.a. What are the composition of Soil. (Or)

14.b. What is mean by soil pollution? Discuss the sources, and control of Soil pollution.

15.a. Give a short note on pollution due to thermal power plant.

(Or)

15.b. Enumerate about the pollution caused by drug, plastics and sugar industry.

Part C

5 x 7 = 35

Answer ALL questions

Each answer should not exceed 600 words or three pages

16.a. (i) What is acid rain? What are the effect of it? (3)

(ii) What is photo chemical Smog? Discuss the causes and effects of London smog? (4)

(Or)

16.b. Explain about formation and depletion of ozone layer. Give the consequences of ozone depletion. How is it protected? Explain in detail.

17.a. What is mean by aquatic pollution? Explain in detail.

(Or)

17. b. Illustrate the aquatic pollution due to detergents, oil spills and pesticides.

18.a. Listout the water quality parameters and indicate the permissible limits.

(Or)

b. How will you determined TDS, DO, BOD and TOC. in water?

19.a. Explain briefly about soil pollution due to excess fertilizer, pesticides and insecticides.

(Or)

19.b.What are macro and micronutrients? Give examples. Explain the environmental effects of Soil pollution.

20.a.Write a short note on Pollution due to cement industry, leather industry and textile industry.

(Or)

20.b. Discuss about waste water disposal and their management.