

UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Seventh Semester - Spring 2022

Paper: Environmental Chemistry Course Code: CHEM-401

Roll No.

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions:

(15x2=30)

- i. What are the effects of chlorofluorocarbon's on ozone layer?
- ii. What is acid rain? How is acid rain formed?
- iii. Differentiate between point and non-point sources with respect to water pollution?
- iv. Discuss the significance of dissolved oxygen?
- v. Give sources and sinks of oxides of NO_x in atmosphere?
- vi. How permanent hardness of water can be removed?
- vii. What do you mean by indoor air pollution? Briefly explain any two indoor air pollutants?
- viii. Briefly explain environmental degradation and its effect on human health and productivity?
- ix. What is mesosphere? Discuss the temperature and pressure profile of mesosphere?
- x. What is chlorination? What are its advantages and disadvantages?
- xi. Briefly explain trickling filters. How it is useful in waste water treatment?
- xii. How is ozone hole created?
- xiii. What are the different types of species present in the atmosphere?
- xiv. Excess use of fertilizers is threat to marine life. Justify.
- xv. What is Environmental Management System?

Q.2. Answer the following questions.

(6x5=30)

- a. What are heavy metals? Discuss the sources and effects of Pb?
- b. Give environmental consequences related to fossil fuel burning?
- c. Explain Activated Sludge process in detail?
- d. Give various types of environmental pollution?
- e. Discuss the effects of acid rain on agriculture and human health?
- f. Discuss the significance of Biosphere and Lithosphere?