UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Seventh Semester – Spring 2023

Paper: Environmental Chemistry

Course Code: CHEM-401

THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions:

(15x2=30)

- i) How is acid rain formed?
- ii) Describe composition of atmosphere?
- iii) Discuss effects of smog.
- iv) Discuss the significance of COD.
- v) Which species are responsible for removal of hydroxyl radical from unpolluted atmosphere?
- vi) Differentiate between point and non-point source with respect to water pollution.
- vii) How is temporary hardness of water removed?
- viii) Define mesosphere. Give its composition.
- ix) What is Environmental Management System?
- x) What is meant by Polar Vortex?
- xi) What are the advantages and disadvantages of inorganic fertilizers?
- xii) How does temperature inversion take place in the troposphere?
- xiii) How is waste water characterized?
- xiv) Explain the composition and properties of the environment
- xv) Differentiate between DO and BOD.

Q.2. Answer the following questions.

(6x5=30)

- a. Discuss CFCs and methane as a Green House Gas?
- b. Write a detailed note on the carbon cycle.
- c. Discuss the sources and effects of Pb and As.
- d. What is ozone depletion? Give its biological consequences.
- e. Define acid rain and how it affects plants and animal life.
- f. Discuss the effects of any two heavy metals as pollutant.