[This question paper contains 4 printed pages.]

- 6. Describe how membrane bioreactors can help achieve effective waste management in effluent treatment plants. (15)
- 7. Differentiate the following (any three): $(5\times3=15)$
 - (a) Organic waste and chemical contaminants in water pollution
 - (b) The somatic and genetic effects of radiation
 - (c) Acid mine drainage vs oil spill effects
 - (d) Fixed film reactors vs sequencing batch reactors
- 8. Do you think radioactive pollution has any relationship with genetic mutations? Justify your answer with examples. (15)

Sr. No. of Question Paper: 2928

Unique Paper Code : 32181601

Name of the Paper : Environmental Pollution &

Human Health

Your Roll No.....

Name of the Course : B.Sc. (H) Environmental

Science - Core

Semester : VI

Duration: 3 Hours

Instructions for Candidates

- 1. Write your Roll No. on the top immediately on receipt of this question paper.
- 2. Answer any **five** questions out of the **eight** provided.
- 3. All Questions carry equal marks.

2928

- 1. (a) Define any **five** of the following: $(2\times5=10)$
 - (i) Pollutants
 - (ii) Ambient air quality
 - (iii) Eutrophication
 - (iv) Noise pollution
 - (v) Marine pollution
 - (vi) Activated Sludge Process (ASP)
 - (b) Fill in the blank of any five of the following:

 $(1 \times 5 = 5)$

- (i) The primary source of thermal pollution is
- (ii) COD stands for and is important because
- (iii) Indoor air pollution is primarily caused by
- (iv) The effect of noise on human mental health includes ______.
- (v) Coral reefs are primarily threatened by

- 2. (a) In what way can the Ganga Action Plan play a significant role in water pollution control?
 - (b) How would you prioritize the use of treatment plants during industrial discharge scenarios?
- 3. (a) Explain the concept of bioaccumulation, including its impact on ecosystems. (8)
 - (b) List and explain steps for conducting environmental monitoring of coastal zones, and techniques for oil spill management.
- 4. (a) Elaborate upon the relevance and usefulness of the Oxidation Pond for water treatment. (8)
 - (b) Discuss the significance of air quality monitoring in urban planning. (7)
- 5. Write short notes on any three of the following: (5×3=15)
 - (a) National Ambient Air Quality Standards of India
 - (b) Biotrickling filters in pollution control
 - (c) Effects of heavy metals on human health
 - (d) Solubility and mobility of lipophilic pollutants