



Answer the following questions - use neat sketches - assume any missing data.

Question (1) (15 marks)

- a. Define environment system? (3 marks)
- b. Define hydrosphere? (4 marks)
- c. What are the contents of global world? (4 marks)
- d. What are the factors affecting the area of sea surface? (4 marks)

Question (2) (20 marks)

- a. Explain briefly the effect of air pollution on animal and plants? (4 marks)
- b. Discuss the effect of air pollution on constructions and archaeological building? (4 marks)
- c. Define solid waste management? (4 marks)
- d. Mention forms of surface imbedding and condition of imbedding site? (4 marks)
- e. Discuss the ways of recycling solid waste? (4 marks)

Question (3) (35 marks)

- a. Define drainage water treatment? (3 marks)
- b. What are the stages of drainage water treatment? (9 marks)
- c. How can we check drainage water? (3 marks)
- d. A delivery pipe with 60 cm diameter carries water sewage for treatment plant, mean discharge was 200 Lit/sec., Maximum discharge was 290 Lit/sec., and the minimum discharge was 150 Lit/sec. It is required to design the suitable screens if the drainage network is isolated. (10 marks)
- e. For 60,000 m³/day discharge, Design the primary sedimentation tank for these cases:
 Rectangular tank - Circular tanks with radial discharge
 1- Compute BOD for the exit water from tanks after sedimentation
 2- Compute volume of total sediments per day if total suspended solids (TDS) and BOD equal to 500 mgm/lit and 350 mgm/lit, respectively (10 marks)

Question (4) (15 marks)

- a. Define wetlands? (3 marks)
- b. What are the importance of wetlands? (4 marks)
- c. What are the contents of drinking water? (4 marks)
- d. What are the standards of water quality? (4 marks)

Question (5) (15 marks)

- a. Discuss the sources of air pollution? (3 marks)
- b. What are the tasks of Environmental Engineer? (4 marks)
- c. Define the environment science? (4 marks)
- d. What are the means used to control air pollution? (4 marks)

With our best wishes

This exam measures the following ILOs							
Question Number	Q1	Q2	Q5	Q3	Q5	Q3	Q2
Skills	Knowledge & Understanding Skills		Intellectual Skills		Professional Skills		