

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****1154 B.Tech. CBCS****Sub. Name: Environmental Engineering-II****Sub. Code: 66877/81517/81794****Day and Date: Tuesday ,16-12-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM**

- Instructions:**
- 1. All questions are compulsory**
 - 2. Assume suitable data wherever necessary and mention it boldly**
 - 3. Draw neat labelled diagrams wherever necessary**
 - 4. Figures to the right indicate full marks**
 - 5. Use of Scientific calculator is allowed**

- Q1)** Attempt the following. **[11]**
- a.** Explain in detail the characteristics of municipal wastewater and discuss their significance in treatment. **[6]**
 - b.** The 5 day 30 degree celsius BOD of a sewage sample is 110 mg / l. Calculate its 5 days BOD at 20 degree celsius. Assume deoxygenation contact at 20 degree celsius, K₂₀ as 0.1. **[5]**
- Q2)** Solve any Two Questions. **[12]**
- a.** Describe the Activated Sludge Process with labelled flow diagram. Explain any four operational problems. **[6]**
 - b.** Explain the primary treatment units: Screening, Grit Chamber, Oil & Grease Trap, PST with their efficiencies. **[6]**
 - c.** Discuss the modifications of ASP with examples. **[6]**
- Q3)** Solve any Two Questions. **[12]**
- a.** Explain the process of anaerobic digestion. Describe any two types of anaerobic digesters. **[6]**
 - b.** Discuss the design and operation of oxidation pond. **[6]**
 - c.** Write short notes on: **[6]**
 - i. Septic tank
 - ii. Types of reactors
- Q4)** Solve any Two Questions. **[12]**

- a. Describe self-purification of streams and draw the DO sag curve. [6]
- b. Explain the concept of EIA. [6]
- c. State any 6 MPCB standards for effluent disposal into land and surface water. [6]
- Q5) Solve any Two Questions. [12]**
- a. Define solid waste. Describe sources, types and characteristics of municipal solid waste. [6]
- b. Explain composting and incineration with diagrams. [6]
- c. Discuss the functional elements of solid waste management. [6]
- Q6) Attempt the following. [11]**
- a. Explain the working of cyclonic separator and ESP for air pollution control. [6]
- b. Describe the steps in EIA report preparation.. [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (101) Bachelor of Engineering (66877) Environmental Engineering-II Part 3 SEM 6
- 2] (101) Bachelor of Engineering (81794) Environmental Engineering-II Part 3 SEM 6
- 3] (1154) B.Tech. CBCS (81517) Environmental Engineering-II Part 3 SEM 6