

**Fourth Semester FYUGP Degree (Reg) Examination April
2026**

**KU4VACCHE102 - WATER QUALITY ANALYSIS
2024 Admission onwards**

Time : 1.5 hours

Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. Define pH of water.
2. What are the factors which determine the normal pH of waste water?
3. What is the chemical oxygen demand (COD) of wastewater, and mention its significance.
4. What is the importance of BOD in water quality assessment?
5. Which desalination method would you choose for brackish water purification in coastal areas? Justify your answer.
6. What are micro-pollutants in water?
7. What is the priority for water usage?
8. What are the common symptoms of waterborne diseases?

Section B

Answer any 4 questions. Each carry 6 marks.

9. Explain the turbidity of water and its measurement methods
10. Explain the determination of dissolved oxygen by Winkler's method.
11. Explain the determination of iron in water using spectrophotometry.
12. Explain the importance of maintaining drinking water quality standards also explain health effects of heavy metals in drinking water.
13. Explain the role of water treatment in preventing waterborne diseases.
14. Explain the methods used to detect microbial contamination in water.

Section C

Answer any 1 questions. Each carry 14 marks.

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15. Describe the theoretical principles involved in the determination of total alkalinity, pH and total hardness of ground water.
16. a) Describe how calcium, zinc and magnesium affect water quality.
b) Explain terms COD, BOD, and what are the differences between them. Explain their importance in water quality assessment.