

30. a. Analyze in detail water quality monitoring and its purposes. 12 3 3 12
- (OR)**
- b. Explain about self purification of streams with suitable sketch. 12 3 3 12
31. a. Write in detail about the management strategy used for water conservation. 12 2 4 12
- (OR)**
- b. Discuss in detail various types of water quality index. 12 2 4 12
32. a. Examine in detail roof top harvesting and their benefits with neat sketch. 12 3 5 7
- (OR)**
- b. Describe in detail vulnerability of improper water management. 12 3 5 7

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**B.Tech. DEGREE EXAMINATION, JUNE 2023**  
Sixth & Seventh Semester

18CEO405T – WATER POLLUTION AND ITS MANAGEMENT  
(For the candidates admitted during the academic year 2018-2019 to 2021-2022)

**Note:**

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40<sup>th</sup> minute.
- (ii) **Part - B & Part - C** should be answered in answer booklet.

Time: 3 hours

Max. Marks: 100

**PART – A (20 × 1 = 20 Marks)**

Answer **ALL** Questions

- |   | Marks | BL | CO | PO |
|---|-------|----|----|----|
| 1. Non point source of pollution is _____.<br>(A) Cannot be traced to a single site of discharge<br>(B) Specific location<br>(C) Release from drainage pipes<br>(D) Effluent release from sewer lines   | 1     | 1  | 1  | 1  |
| 2. Growth of algae is due to _____.<br>(A) Radioactive pollutant<br>(B) pH<br>(C) Eutrophication process<br>(D) Temperature   | 1     | 1  | 1  | 1  |
| 3. Composite sample refers _____.<br>(A) Collect one time at one location<br>(B) Collect same location at different times<br>(C) Collect twice a year at one location<br>(D) Specific time and location | 1     | 1  | 1  | 1  |
| 4. What is the most suitable storage container for heavy metals?<br>(A) Glass<br>(B) Polyethylene<br>(C) Plastic<br>(D) Stainless steel   | 1     | 1  | 1  | 1  |
| 5. Heavy metal is poisonous at _____.<br>(A) Low density<br>(B) Medium density<br>(C) High concentration<br>(D) Low concentration   | 1     | 1  | 2  | 1  |
| 6. According to the physical characteristics what is the optimum temperature should be maintained in the drinking water?<br>(A) 35°C<br>(B) 25°C<br>(C) 10°C<br>(D) 45°C                                | 1     | 1  | 2  | 1  |
| 7. In the given below which is one among the reason for ground water contamination?<br>(A) Aquifer<br>(B) Unconfined aquifer<br>(C) Road slats and chemicals<br>(D) Hydraulic condition                 | 1     | 1  | 2  | 1  |

8. In the given which is belongs to physical characteristics of wastewater? 1 1 2 1  
 (A) Volatile suspended solids (B) Organic constituents  
 (C) Dissolved oxygen (D) Metallic constituents
9. Which is not part of mitigation measures for water pollution contamination due to industries? 1 1 3 1  
 (A) Use of bio-degradable or (B) Monitoring of ground water treated additives  
 (C) Cluster sampling approach (D) Dewatering of sludges
10. According to \_\_\_\_\_, state pollution control board possesses statutory power to take action against any defaulting agency 1 1 3 1  
 (A) National environment policy (B) Water Act 1974 2008  
 (C) Hazardous waste Act 1989 (D) National sanitation policy 2006
11. Which is used to represent groundwater quality? 1 1 3 1  
 (A) Origin plot (B) Carto map  
 (C) Chart (D) Piper plot
12. In the given which is not the purpose of water quality monitoring? 1 1 3 1  
 (A) To identify specific pollutant (B) To determine chemical and source of pollution constituent's trend over time  
 (C) To screen for impairment (D) To improve the spatial monitoring
13. Water quality index is not evaluated based on the given parameter 1 1 4 1  
 (A) Bacteriological (B) Water quantity  
 (C) Physical (D) Chemical
14. In the given below which is not a part of management strategy used for water conservation? 1 1 4 1  
 (A) Reduce water demand (B) Increase water supply  
 (C) Promote resource Stewardship (D) Remove and dispose the polluting matter
15. Choose the wrong statement 1 1 4 1  
 (A) Environmental indicator describe the behaviour of separate component of the environment  
 (B) Environmental indicators quantify and simplify information on environmental issues in order to make this information usable and publicly known  
 (C) Environmental indicators most frequently represent a change in condition over a period of time or geographical area  
 (D) Environmental indicators don't change with reference to time and geographic position
16. SPCB stands for 1 1 4 1  
 (A) State pollution control board (B) State prevention commission board  
 (C) State prevention control board (D) State pollution collateral board

17. \_\_\_\_\_ is producing water supply and sewage facilities in the entire state of Tamil Nadu. 1 1 5 1  
 (A) TWAD board (B) CMWSSB board  
 (C) Water Act 1974 (D) Water Act 1976
18. June 5<sup>th</sup> is celebrated as \_\_\_\_\_. 1 1 5 1  
 (A) World water day (B) Rainwater harvesting day  
 (C) World environment day (D) Water crisis management day
19. \_\_\_\_\_ when a city taps dry out and people have to stand for water in line. 1 1 5 1  
 (A) Water dry day (B) Zero water day  
 (C) Water crisis day (D) World water crisis day
20. In the given below which is not a sub component of root top rainwater harvesting? 1 1 5 1  
 (A) Catchment (B) Transportation  
 (C) First flush (D) Aquifer

**PART – B (5 × 4 = 20 Marks)**  
 Answer ANY FIVE Questions

- |  | Marks | BL | CO | PO |
|--|-------|----|----|----|
| 21. List out the variables used for model transport of pollutant.      | 4     | 2  | 1  | 1  |
| 22. Write short notes on water quality standards.                      | 4     | 2  | 2  | 1  |
| 23. What are the various software's used for water quality monitoring? | 4     | 2  | 3  | 1  |
| 24. Briefly describe role of pollution control board.                  | 4     | 2  | 4  | 1  |
| 25. Differentiate world water and environment day.                     | 4     | 3  | 5  | 7  |
| 26. Why public awareness is essential to reduce water pollution?       | 4     | 3  | 1  | 12 |
| 27. Define sustainable development and brief its significance.         | 4     | 2  | 5  | 1  |

**PART – C (5 × 12 = 60 Marks)**  
 Answer ALL Questions

- |  | Marks | BL | CO | PO |
|--|-------|----|----|----|
| 28. a. Illustrate in detail about eutrophication and their process with neat sketch. | 12    | 3  | 1  | 1  |
| <b>(OR)</b>  |       |    |    |    |
| b. Explain in detail about various types and sources of water pollution.             | 12    | 3  | 1  | 1  |
| 29. a. Demonstrate in detail the physical characteristics of waste water.            | 12    | 2  | 2  | 3  |
| <b>(OR)</b>  |       |    |    |    |
| b. Evaluate in detail the effects of ground water pollution.                         | 12    | 2  | 2  | 3  |