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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12CE218** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **WATER SUPPLY ENGINEERING** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | List any two objectives of public water supply system. | (1) |
| 2. | List the sources of water supply. | (1) |
| 3. | Sate any four chemical characteristics of water. | (1) |
| 4. | What is the unit for the measurement of turbidity? | (1) |
| 5. | State any four coagulants. | (1) |
| 6. | State any two advantages of chlorination. | (1) |
| 7. | What is the purpose of intake structure? | (1) |
| 8. | Mention the function of pumps. | (1) |
| 9. | List different layout of distribution system. | (1) |
| 10. | What is intermittent system of water supply? | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11 | Mention the types of water demand. | (3) |
| 12 | Define: BOD | (3) |
| 13 | Define: Pre-chlorination and Post-chlorination. | (3) |
| 14 | What are the advantages of GI pipes. | (3) |
| 15 | What are the requirements of a distribution system? | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. | a. | Explain the sources of water. | 15 |
| (OR) | | | |
| 17. | a. | Population of Coimbatore as obtained from the census report is as follows,   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Year | 1971 | 1981 | 2001 | 2011 | | Population in thousands | 740.35 | 925.88 | 1100.75 | 2136.92 |   Estimate the population of the town in the year 2021, 2031 and 2041 by   1. Arithmetic increase method 2. Geometrical increase method 3. Incremental increase method | 15 |
| 18. | a. | Explain different characteristics of water. | 15 |
| (OR) | | | |
| 19. | a. | Explain the procedure for finding total solids and suspended solids in water. | 15 |
| 20. | a. | Describe different stages of water treatment system with a aid of a flow diagram. | 15 |
| (OR) | | | |
| 21. | a. | Explain working of rapid sand filter with the help of neat sketch. | 15 |
| 22. | a. | Discuss in detail about different types of intake structures with neat sketch. | 15 |
| (OR) | | | |
| 23. | a. | Write a short note on pipe appurtenances in laying water supply. | 15 |
| 24. | a. | Write a short note on water distribution system and its components. | 15 |
| (OR) | | | |
| 25. | a. | Describe in details about house service connection with an aid of a neat sketch. | 15 |

ALL THE BEST