**18CE102**

**Hall Ticket Number:**

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| **IV/IV B.Tech (Regular) DEGREE EXAMINATION** | | | |
| **December, 2021** | **Institutional Elective** | | |
| **Seventh Semester** | **Rural Water Supply and Environment Sanitation** | | |
| **Time:** Three Hours | | **Maximum:** 50 Marks | |
| *Answer Question No.1 compulsorily.* | | | (10X1 = 10 Marks) |
| *Answer ONE question from each unit.* | | | (4X10=40 Marks) |
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| 1. | a) | What is the need to monitor the water quality in rural areas? | CO1 |  |
|  | b) | What are the problems associated with rural water supply? | CO1 |  |
|  | c) | What is National Rural Drinking Water Quality Monitoring and Surveillance Programme? | CO1 |  |
|  | d) | Define Coliforms? | CO2 |  |
|  | e) | Which states were affected by excess Fluoride? | CO2 |  |
|  | f) | What is meant by Epidemiology? | CO2 |  |
|  | g) | Define Sanitation? | CO3 |  |
|  | h) | Define soak pit? | CO3 |  |
|  | i) | What are the advantages of composting? | CO4 |  |
|  | j) | What is the advantage of Biogas plant? | CO4 |  |
| **Unit -I** | | | | |
| 2. | a) | Explain the different sources of water the in rural water supply? | CO1 | 5M |
|  | b) | Explain about the issues related to water quantity associated with Rural water supply? | CO1 | 5M |
| **(OR)** | | | | |
| 3. | a) | Explain in detail about National rural drinking water program? | CO1 | 5M |
|  | b) | List and explain various problems associated with rural water supply in India? | CO1 | 5M |
| **Unit -II** | | | | |
| 4. |  | Explain briefly about Epidemiological aspects of water quality? | CO2 | 10M |
| **(OR)** | | | | |
| 5. |  | What are the different Low cost water treatment methods, explain briefly? | CO2 | 10M |
| **Unit -III** | | | | |
| 6. | a) | Explain in brief about the Rural Sanitation in India? | CO3 | 5M |
|  | b) | Explain the various treatment units used for treating the rural wastewater? | CO3 | 5M |
| **(OR)** | | | | |
| 7. | a) | Explain in brief about the septic tanks? | CO3 | 5M |
|  | b) | Explain the various low cost excreta disposal systems used in rural sanitation? | CO3 | 5M |
| **Unit -IV** | | | | |
| 8. |  | Explain briefly about the various issues and problems encountered in rural health and sanitation? | CO4 | 10M |
| **(OR)** | | | | |
| 9. |  | Explain in brief about the landfill process used for the treatment of solid waste for rural community? | CO4 | 10M |

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