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



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **17CE2041** | **Duration :** | **3hrs** |
| **Sub. Name :** | **MUNICIPAL SOLID WASTE MANAGEMENT** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Explain the importance of source reduction process in solid waste management. | CO4 | 5 |
| b. | Illustrate the sources of radioactive substances, biological waste and flammable wastes. | CO4 | 5 |
| c. | Define the component separation as waste processing technique. | CO3 | 10 |
|  |  |  |  |
| **(OR)** | | | | |
| 2. | a. | Define the suitable solid waste management system for your locality. | CO1 | 10 |
| b. | Explain the important key issues associated with waste disposal. | CO5 | 10 |
|  |  |  |  |  |
| 3. | a. | Discuss the concept of integrated waste management. | CO6 | 10 |
| b. | Illustrate the types of containers used in hazardous waste management. | CO4 | 10 |
| **(OR)** | | | | |
| 4. | a. | Explain the management, treatment and minimization of hazardous waste. | CO6 | 10 |
| b. | Define the bio-gasification and explain its advantages. | CO5 | 10 |
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| 5. | a. | Explain the important factors influence municipal waste system. | CO5 | 10 |
| b. | Illustrate the different methods of waste disposal. Define also their selection criteria. | CO1 | 10 |
| **(OR)** | | | | |
| 6. | a. | Describe the solid waste management system. | CO5 | 10 |
| b. | Illustrate the operation and maintenance of sanitary landfill. | CO1 | 10 |
|  |  |  |  |  |
| 7. | a. | Explain in detail about the recycling programme elements for solid waste management. | CO2 | 5 |
| b. | Explain various incineration technologies. | CO6 | 15 |
| **(OR)** | | | | |
| 8. | a. | Classify the different elements in hazardous waste management. | CO3 | 10 |
| b. | Explain the “Material Recovery Facility”. | CO5 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the solid waste according to their sources. | CO1 | 10 |
| b. | Classify the physical characteristics of SWM. | CO1 | 10 |