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**Question Paper Code: 59112**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Elective

Civil Engineering

15UCE912 – MUNICIPAL SOLID WASTE MANAGEMENT

(Regulation 2015)

Duration: One hour

Maximum: 30Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

- \_\_\_\_\_ is the least preferable option in hierarchy of waste management CO1- R  
(a) Reduce (b) Recycle (c) Dispose (d) Treat
- Municipal solid waste rule was amended in CO1- R  
(a) 1989 (b) 2000 (c) 1985 (d) 2001
- The waste should be collected within \_\_\_\_\_ CO2-R  
(a) 2 weeks (b) 10 to 12 days (c) 5 to 6 days (d) 9 days
- The best way to manage waste is \_\_\_\_\_ CO2- R  
(a) Not to produce it (b) Reduce (c) Recycle (d) Processing
- The loading height of vehicles should not exceed \_\_\_\_\_ CO3- R  
(a) 2.5 m (b) 1 m (c) 1.5 m (d) 1.25 m
- The assumed standard deviation for M50 concrete is CO3- R  
(a) 500 kg/m<sup>3</sup> (b) 600 kg/m<sup>3</sup> (c) 400 kg/m<sup>3</sup> (d) 750 kg/m<sup>3</sup>
- The range of C/N ratio in composting process is \_\_\_\_\_ CO4- R  
(a) 31 to 35 (b) 21 to 25 (c) 26 to 30 (d) 36 to 45
- Completely decomposed organic matter is called \_\_\_\_\_ CO4- R  
(a) Mulch (b) Humus (c) Compost (d) Scum
- The liquid that drains from landfill is called \_\_\_\_\_ CO5- U  
(a) Leachate (b) Sewage (c) Sewerage (d) None of the above
- A \_\_\_\_\_ is a complete layer of cell over the active area of the landfill. CO5- U  
(a) 60 - 70 ft (b) 50 - 60 ft (c) 50 - 70 ft (d) 40 - 60 ft

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Summarize the effects and improper disposal of solid waste on human health and environment. CO1- U (8)
12. Compose the impacts of public health and economic aspects of on-site solid waste storage system. CO2- U (8)
13. Elaborate the role of transfer station in solid waste management and discuss its types. CO3- U (8)
14. Describe the incineration technologies with the emphasis on air emissions and control techniques. CO4- U (8)
15. Identify the adverse effects of landfill leachate and its control measures. CO5- U (8)