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Question Paper Code: 99178

B.E./B.Tech. DEGREE EXAMINATION, MAY 2022

Open elective

Computer Science Engineering

19UCE978 - Solid Waste Management

(Common to EEE, ECE, MECH, IT , Chemical and biomedical Engineering branches)

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Density of waste is measured in the unit of CO1- U
(a) kg/m^3 (b) g/m^3 (c) kg/m^2 (d) g/m^2
- Which of the following is a biodegradable waste? CO3- App
(a) Polythene bags (b) Synthetic fiber (c) Food waste (d) Paper
- How many main components are there in integrated waste management? CO1- U
(a) Two (b) Three (c) Seven (d) Eleven
- Trucks with capacities of $10 - 12 \text{ m}^3$ is known as CO1- U
(a) Small-scale collection (b) Non-compactor trucks (c) Compactor truck (d) Trailor
- Which of the following methods is better for the solid waste problem? CO1- U
(a) Recycling (b) Landfilling (c) Both a and b (d) None of the above
- Which of the following is the oldest and the most common method used to dump solid wastes? CO1- U
(a) River (b) Ocean (c) Landfill (d) Same
- Which of the following is not a Biomedical waste? CO1- U
(a) Animal waste (b) Microbiological waste
(c) Chemical waste (d) Domestic waste

8. The color code of plastic bag for disposing of microbial laboratory culture waste ___. CO1- U
 (a) Black (b) Red (c) Blue (d) White
9. What is the iron and steel constitute of e-waste? CO1- U
 (a) 20 (b) 30 (c) 40 (d) 50
10. Nickel is released from _____. CO1- U
 (a) Display (b) Calculator (c) Alloy (d) Transformers

PART – B (5 x 2= 10 Marks)

- 11 Define solid Waste Management CO1- U
- 12 List the On-site handling methods. CO2- App
- 13 What are the Factors in Composting Operation? CO1- U
- 14 What are Sharps CO1- U
- 15 What is e-waste? CO1- U

PART – C (5 x 16= 80 Marks)

- 16 (a) Explain the various sources and types of solid wastes CO1- U (16)
- Or
- (b) Enumerate the characteristics of municipal solid waste CO1- U (16)
- 17 (a) Describe with a neat sketch how Haul Container system is practiced in Chennai to transfer the MSW to disposal site CO2- Ana (16)
- Or
- (b) Enumerate how Mumbai city is following Solid Waste Management Rules 2016 to manage the MSW CO2- Ana (16)
- 18 (a) Discuss with a neat sketch of Pyrolysis process CO5-Ana (16)
- Or
- (b) Write the salient features of Municipal solid waste management Rules 2016 CO5-Ana (16)
- 19 (a) List out and discuss in detail the classification of biomedical waste CO1- U (16)
- Or
- (b) Write the salient features of Biomedical waste management Rules 2016 CO1- U (16)

- 20 (a) Discuss in detail the various waste produced from industries and its impact on environment CO4- Ana (16)
- Or
- (b) What are the Salient features of Electronic Waste (Management) Rules 2016 implemented nowadays CO4- Ana (16)

