

B.Voc. DEGREE EXAMINATION, NOVEMBER 2023
SUSTAINABLE ENERGY MANAGEMENT
THIRD SEMESTER

COURSE : MAJOR CORE
PAPER : WASTE SEGREGATION AND MANAGEMENT (THEORY)
SUBJECT CODE : 16VS/VM/WM36
TIME : 2 HOURS MAX.MARKS:50

SECTION -A

ANSWER ALL QUESTIONS:

(20x1=20)

I. Choose the correct answer:

- Which of the following solid wastes describes the term 'Municipal Solid Waste'?
(a) Toxic (b) Hazardous
(c) Non-toxic (d) Non-hazardous
- Which of the following methods is better for the solid waste problem?
(a) Recycling (b) Landfilling
(c) Both a and b (d) None of the above
- Which of the following statements is true about zero waste management?
(a) Separate collection of each kind of waste (b) Segregation of garbage at the source
(c) Community involvement (d) All of the above
- Why is it difficult to recycle plastics?
(a) It is very hard (b) It comes in different sizes
(c) It is adhesive (d) It contains different types of polymer resins
- The organic material of the solid waste will decompose _____.
(a) By the flow of water (b) By the soil particles
(c) By the action of microorganisms (d) By oxidation
- When the matter present inside the sanitary landfill breaks down, Which of the following Gas Generates?
(a) Methane (b) Nitrogen
(c) Hydrogen (d) All of the above
- Reactors that run without heating of wastewater, are usually used.
(a) True (b) False
- Which of the following is a sustainable method of e-waste management?
(a) Landfills (b) Incinerators
(c) Reusing and Recycling (d) None of the above
- Oxygen demanding wastes
(a) decrease the oxygen level in water (b) increase the oxygen level in water
(c) increase the temperature of water (d) none of the above

10. An environmental audit helps in achieving the objective of
 (a) Waste minimization (b) Resource optimization
 (c) Public awareness of the unit's environmental records (d) All the above
11. Which of the act is addressed for energy production?
 (a) NGER (b) NEPM
 (c) NOPEs (d) NDGO

II. Fill in the blanks:

12. The process of burning municipal solid wastes under suitable temperature and conditions in a specific furnace is called _____.
13. The full form of BOD is _____.
14. Vermicompost is used as a biofertilizer because it is rich in _____.
15. The moisture level required for vermicomposting should be between _____.

III Answer in a sentence or two:

16. Define biomass
17. What is a hazard?
18. What are 3 'R' in waste management system?
19. What is waste minimization audit?
20. Write the uses of slurry.

SECTION – B

ANSWER ANY SIX QUESTIONS:

(6x3=18)

21. List the properties of solid waste.
22. Write the symbols and colour codes for different types solid wastes.
23. Explain the significance of aerobic composting.
24. List the measures to mitigate environmental effects of landfills.
25. How is the waste processed in sugar industry?
26. What is COD?
27. Write the different types of hazards.
28. What is genotoxic waste?
29. Write the importance of waste minimization audit.
30. What do you mean by resource reduction?

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2x6=12)

31. Elaborate on waste treatment by different chemical methods.
32. Explain the significance of processing of food waste.
33. Describe the safe management of pharmaceutical waste.
34. Explain the process of vermicomposting and its advantages.
