

B.Voc. DEGREE EXAMINATION, APRIL 2024
SUSTAINABLE ENERGY MANAGEMENT
FOURTH SEMESTER

COURSE : MAJOR CORE
PAPER : ADVANCED BIOENERGY
SUBJECT CODE : 16VS/VM/AB46 **MAX. MARKS : 100**
TIME : 5 HOURS **(Theory: 50marks +Practical: 50 marks)**

SECTION – A

ANSWER ALL QUESTIONS: **(20x1= 20)**

1. What is Biopower?
2. Define Gasification.
3. Explain anaerobic digestion.
4. What are bioheat fuels?
5. Define biomass.
6. What is meant by retention time?
7. What is residual waste?
8. What is residue feed stock?
9. What is bio slurry?
10. Define Scrubbing.
11. What is composting?
12. The digester volume depends on ----- and amount of ----- supply.
13. List the diseases caused by genotoxic waste.
14. What are non-sustainable products?
15. Write a short note on ocean acidification.
16. What is ocean depletion?
17. What are sharps?
18. Define lotus burner.
19. What is sustainability?
20. What is full treatment?

SECTION – B

ANSWER ANY SIX QUESTIONS: **(6x3=18)**

21. Write a short note on biobased products.
22. Discuss the pyrolysis.
23. List the advantages of biogas technology.
24. Enumerate the factors affecting biogas production.
25. Write the conditions required for composting bioslurry.
26. Discuss the components of biogas plant.
27. What are the three pillars of sustainability?
28. Give examples of chemical wastes.
29. Discuss the uses of biogas stove.
30. Enumerate various materials used for the construction of biogas stoves.

SECTION – C

ANSWER ANY TWO QUESTIONS:

(2x6=12)

31. Briefly discuss biogas production process.
32. Discuss generation of biofuels.
33. Discuss pharmaceutical waste.
34. Write an essay on bioslurry application in the field of agriculture.
