QP CODE: 22102974

22102974

Reg No : .....

Name : .....

B.VOC DEGREE REGULAR / REAPPEARANCE EXAMINATIONS, AUGUST 2022

Third Semester

B.Voc Renewable Energy Technology and Management

RETTG301 - WATER AND WASTE WATER TREATMENT

2018 Admission Onwards

3C360548

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Explain Hazen unit.
2. Explain biomagnification.
3. List out methods for the removal of colloidal particles.
4. List out the various types of aerators.
5. What is the form when coagulant is added to water?
6. What is the function of a clariflocculator in water treatment?
7. What are the various types of filters?
8. Explain biological metabolism in processes of filtration.
9. Briefly explain dual or multi media filters.
10. Explain the process of reverse osmosis.
11. What is nanofiltration?
12. List out the various uses of ultrafiltration membrane.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the effect of the presence of chloride ions in water.

14. Comment on the statement "Water quality indices - an important tool for water quality assessment".

15. Explain salting out in lyophobic colloids.

16. Explain the donnan effect.

17. Write a note on health aspects of ozonation.

18. List out various applications of filtration.

19. Explain air binding in filters.

20. Compare microfiltration with ultrafiltration.

21. Compare electrodialysis with electrolysis.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Write notes on a)Physical unit process b)Chemical unit process c)Biological unit process

23. Write a note on factors affecting disinfection.

24. Explain in detail about the various filter troubles commonly observed.

25. Explain various types of membrane configuration.

(2×15=30)