

Avinashilingam Institute for Home Science and Higher Education for Women,
Coimbatore 641 043
Master Degree Examination – November 2017
Semester - III

Class : II PG
Major : Bio Textiles

Time : 3 Hours
Max. Marks : 60

12MBXC17 Textile Effluent Treatment

Part – A

Choose the Correct Answer 10 x ½ = 5

1. What will be the approximate pH level of the effluent comes out of scouring unit?
a) pH 1 b) pH 5 c) pH 7 d) pH 9
2. The processing unit which gives out colourless effluent is
a) dyeing unit b) bleaching unit c) roller printing unit d) rotary printing unit
3. Among the following _____ is a secondary treatment process.
a) trickling filtration b) screening c) ion-exchange d) equalization
4. The oxidation process carried out in the absence of air is called as
a) aerobic b) activation c) anaerobic d) equalization
5. The grinding of coarse solids into smaller and more uniform particles is called as
a) sedimentation b) comminution c) coagulation d) flocculation
6. The system that consists of large tank / pond equipped with mechanical aerators to maintain an aerobic environment is
a) trickling filter b) sedimentation c) activated sludge d) aerated lagoon
7. The process of using the biological organisms to solve an effluent water issue is
a) anaerobic digestion b) oxidation ditch c) bio-remediation d) aerated lagoons
8. The treatment of effluent water in a large tank using micro organisms or enzymes is
a) bio reactors b) activated sludge process c) ion-exchange d) dialysis
9. The formula of ozone is
a) O₂ b) O c) O₃ d) (O)
10. The process of electro dialysis is used in waste water treatment for
a) metal recovery b) microbes recovery c) salt recovery d) dye recovery

Part – B
Answer the following 5 x 4= 20
Answer should not exceed 200 words or One page

- 11a. Write the characteristics of effluents generated out from the sizing and desizing units..
- (or)
- 11b. Describe the salient features of the environmental impact assessment.
- 12a. Brief on the activated sludge process.
- (or)
- 12b. How is evaporation process helpful in the industrial waste water treatment.
- 13a. Compare the process of aerobic treatment with that of anaerobic one.
- (or)
- 13b. Give an account on the reductive de-halogenation process adapted in the waste water treatment.
- 14a. State the concept of bioremediation towards the textile effluent treatment.
- (or)
- 14b. Write about the important aspects of bioremediation for the removal of heavy metals.
- 15a. Justify, how is ozone useful in the textile waste water treatment process.
- (or)
- 15b. Write the application of biosensors in the textile waste water treatment process.

Part – C
Answer the following 5 x7 = 35
Answer should not exceed 600 words or Three pages

- 16a. List out the different effluent parameters. Discuss about their importance in the characterization of effluents.
- (or)
- 16b. Explain on the pollution control laws and environmental protection act.
- 17a. Give a detailed account on the aerated lagoon and trickling filtration processes.
- (or)
- 17b. Explain the tertiary treatment process adapted in industrial waste water treatment.
- 18a. Elaborate, how is microbiology principle useful for the effective waste water treatment.
- (or)
- 18b. Describe the importance of genetic engineering in the control of industrial pollution.
- 19a. Explain the principle and mechanism of in-situ bioremediation in the textile effluent treatment.
- (or)
- 19b. Elaborate the application of bioremediation principle for the removal of dyes from the textile waste water.
- 20a. Elaborate on the use of agro wastes in the textile waste water treatment process.
- (or)
- 20b. With example, explain the concept of enzymatic removal of colour using oxido reductase.
