Manuscript

Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – June/July 2021

II Semester

Class : I UG **Time : 3 Hours**
Major : Textiles and Apparel Designing **Max. Marks : 100**

18BTDI02 DSE II Chemistry Theory for Textiles and Clothing

Part A **10 x 1 = 10**

Choose the Correct Answer

1. If the concentration of a solution is expressed in normality, it is denoted by CO1 K1
   a. Nm b. Mn
   c. N d. M

2. Select the chemical solution which gives a pH 4 CO1K2
   a. Acetic acid b. Sodium hydroxide
   c. Potassium hydroxide d. Sodium carbonate

3. Pick up the unsaturated compound from the following CO2K2
   a. Methane b. Ethylene
   c. Ethane d. Ethyl alcohol

4. Choose the strong alkali chemical solution from the following: CO2K2
   a. Sodium bicarbonate b. Sodium carbonate
   c. Potassium hydroxide d. Sodium hydroxide

5. Select the 100% natural fibre among the following: CO3K3
   a. Lyocell b. Modal
   c. Viscose d. Silk

6. Choose the protein textile fibre from the following: CO3K3
   a. Cotton b. Wool
   c. Acrylic d. Jute

7. Choose the insoluble dye from the following: CO4K4
   a. Direct dye b. Acid dye
   c. Vat dye d. Reactive dye

8. Select the dye suitable for cotton dyeing CO4K4
   a. reactive dye b. acid dye
   c. basic dye d. disperse dye

9. The bleaching agent suitable for all textile material is CO5K4
   a. calcium hypochlorite b. sodium chlorite
   c. hydrogen peroxide d. sodium hydroxide

10. Pick up the enzyme among the following: CO5K4
   a. Pectin b. Cellulase
   c. Lignin d. Protein

Part B **5 x 6 = 30**

Answer ALL questions
Each answer should not exceed 400 words or two pages

11.a. Discuss about the impact of handling corrosive chemicals. CO1K1

(or)

11.b. What are the safety measures to be adopted for handling glassware? CO1K2

12.a. Discuss the formation of ionic bond. CO2K2

(or)

12.b. Explain the hybridisation and geometry of methane. CO2K2

13.a. Write the reasons for the water absorbency character in natural fibers. CO3K3

(or)

13.b. Bring out the difference between polyamide and polyester fibres. CO3K3

14.a. What are the requirements of a dye suitable for use in textiles? CO4K3

(or)

14.b. Write the role on chromophore and auxochrome in a dye. CO4K3

15.a. Explain the procedure for the bleaching process suitable for wool. CO5K4

(or)

15.b. Justify the importance of effluent treatment in textile processing industries. CO5K4

Part C **5 x 12 = 60**

Answer ALL questions
Each answer should not exceed 800 words or four pages

16.a. Elaborate the important aspects involved in the maintenance of reagents and antioxidants. CO1K2

(or)

16.b. Discuss the procedure for performing the redox titrations. CO1K2

17.a. Discuss the hybridisation and geometry of ethylene and acetylene. CO2K3

(or)

17.b. Explain the classification of organic compounds with example. CO2K3

18.a. Explain the basic requirements of a textile fibre. CO3K4

(or)

18.b. Discuss on the difference between the wool and silk fibres. Write the type of bonds present in them. CO3K3

19.a. Explain the Witts' theory of colour and constitution. CO4K4

(or)

19.b. Explain the structural changes taking in fibers place during dyeing. CO4K4

20.a. Explain the antimicrobial and biopolishing finishing treatments on cotton fabric. CO5 K4

(or)

20.b. Explain, how enzymes are utilized in textile finishing industries? CO5K4

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