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 2021
VI Semester

Class : III UG **Time : 3 Hours**
Major : Chemistry **Max. Marks: 100**

18BCHC23 Industrial Chemistry

Part A **10 x 1 = 10**
Choose the Correct Answer

1. Biochemical oxygen demand (BOD) directly affects CO1 K1
   a. pH b. Temperature
   c. Both A and B d. none of the above

2. The near UV region covers the wavelength range CO1 K1
   a. 400 to 300 nm b. 300 to 140 nm
   c. 140 to 100 nm d. 400 to 100 nm

3. Bio chemical reaction can accelerate with CO2 K1
   a. non-reactive elements b. Enzyme
   c. fluids d. None of the above

4. Vinegar typically contains 5-8% of CO2 K1
   a. Citrus acid b. Hydrochloric acid
   c. Acetic acid d. None of the above

5. Aniline point is used to identify the type of CO3 K1
   a. Inorganic compound b. Hydrocarbon
   c. Heteroatom d. All the above

6. SI unit of viscosity CO3 K1
   a. Pascal-second b. Newton-hour
   c. Watt-hour d. None of the above

7. Dry ice is CO4 K1
   a. Solid CO_2 b. liquid nitrogen
   c. acetylene d. hydrogen

8. C-H bond distance in acetylene CO4 K1
   a. 207.09pm b.106.0pm
   c.109 pm d. 208pm

9. Reduction is CO5 K1
   a. gain of electron b. addition of oxygen
   c. loss of electron d. None of the above

10. Density of water CO5 K1
   a. 897kg/m^3 b. 997kg/m^3
   c. 797kg/m^3 d. none of the above

Part B **5 x 6 = 30**

Answer ALL questions

Each answer should not exceed 400 words or two pages

11.a. Explain BOD and COD.	CO1 K1
(or)	
11.b. Write about EDTA method.	CO1 K2
12.a. Elaborate sugar extraction.	CO2 K2
(or)	
12.b. Explain the manufacting process of vinegar.	CO2 K2
13.a. Differentiate between synthetic lubricant and greases	CO3 K2
(or)	
13.b. Explain the following. i. Viscosity index ii. Copper strip test iii. Aniline point	CO3 K1
14.a. Explain the uses of carbon dioxide.	CO4 K1,K2
(or)	
14.b. State the advantages and disadvantages of hydrogen energy source.	CO4 K2
15.a. What are the characteristics of industrial wastes.	CO5 K1,K2
(or)	
15.b. Explain the principles of industrial waste treatment.	CO5 K2

Part C **5 x 12 = 60**

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Explain and differentiate zeolite and ion exchange process.	CO1 K2
(or)	
16.b. Explain the following. i. sedimentation ii. Sterilization iii. Bleaching method iv. Residual chloride	CO1 K2
17.a. Write short note on any two i. Chemical process of sulphate ii. Fermentation iii. Pulp mechanical process	CO2 K2
(or)	
17.b. Write on recovery of sucrose from molasses.	CO2 K2
18.a. Explain the following: i. fluid lubrication ii. Boundary lubrication iii. Extreme pressure lubrication	CO3 K2
(or)	
18.b. Explain the steps involved in the manufacture of greases.	CO3 K2
19.a. Explain i. coke combustion method ii. fermentation method.	CO4 K2
(or)	
19.b. Explain the applications in industry of Hydrogen, Oxygen, Nitrogen.	CO4 K2
20.a. Elaborate on destructive and regenerative methods.	CO5 K2
(or)	
20.b. What is Sanitary chemical analysis of industrial effluents and sewage.	CO5 K2

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