ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-69(CLASS-12)

TOPIC- BIOMOLECULES (CARBOHYDRATE)

SUBJECT – CHEMISTRY **F.M. - 15**

DURATION – 30 mins **DATE – 25.01.21**

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1. Which one of the following is an example of adsorption?

a. ammonia in contact with water
b. anhydrous $CaCl_2$ with water
c. silica gel in contact with water vapours
d. all of these

2. At 15°C out of H_2, CH_4, CO_2, NH_3, which gas will be adsorbed maximum by charcoal?

a. H_2
b. CH_4
c. CO_2
d. NH_3

3. Which of the following colloids are solvent hating?

a. lyophilic
b. lyophobic
c. hydrophilic
d. none of these

4. If the dispersed phase is a liquid and the dispersion medium is solid, the colloid is known as

a. foam
b. sol
c. emulsion
d. gel

5. The process of separating a crystalloid, from a colloid by filtration is called

a. emulsification
b. dialysis
c. coagulation
d. Peptization

6. The movement of colloidal particles towards the oppositely charged electrodes on passing electric current is known as

a. Tyndall effect
b. Cataphoresis
c. Brownian movement
d. None of these

7. An emulsifier is a substance which

a. stabilizes the emulsion
b. coagulates the emulsion
c. retards the dispersion of liquid in liquid
d. causes homogenesis of emulsion

8. Homogeneous catalysis does mean

a. Reactants and goods have to be at the same level
b. Catalyst and reactants must be in the same phase
c. The reaction mixture must be formed homogeneously during
d. The reaction mixture distribution must be homogeneous

9. Which of the following kinds of catalysis can be explained by the adsorption theory?

a. enzyme catalysis
b. homogeneous catalysis
c. acid base catalysis
d. heterogeneous catalysis

10. The volume of gases H_2, CH_4, CO_2 and NH_3 adsorbed by 1 gm charcoal at 293 K can be given in the order?

a. $CH_4 > CO_2 > NH_3 > H_2$
b. $CO_2 > NH_3 > H_2 > CH_4$
c. $NH_3 > CO_2 > H_2 > CH_4$
d. $NH_3 > CO_2 > CH_4 > H_2$

11. **In Freundlich adsorption isotherm $x/m = Kp^{1/n}$, the value of 'n' at low pressure is**-
(a) more than one.
(b) less than one.
(c) equal to one.
(d) from zero to one

12. **Which shape selective catalyst is used to convert alcohol to gasoline?**
(a) Trypsin
(b) Calgon
(c) ZSM-5
(d) Zeigler-Natta catalyst

13. **When a small amount of $FeCl_3$ is added to a freshly precipitated $Fe(OH)_3$, b reddish brown colloidal solution is obtained. This phenomenon is known as**-

(a) dialysis
(b) peptization
(c) protection
(d) dissolution

14. **Lyophillic colloids are stable due to**-

(a) charge on the particles.
(b) large size of the particles.
(c) small size of the particles.
(d) layer of dispersion of medium on the particles

15. **The potential difference between the fixed charged layer and the diffused layer having opposite charge is called**-

(a) Zeta potential
(b) Electrokinetic potential
(c) Both (a) and (b)
(d) Streaming potential

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