CHEMISTRY

BOOKS - TARGET CHEMISTRY (HINGLISH)

SURFACE CHEMISTRY

Classical Thinking

1. The boundary separating two phases is called _____.

A. surface

B. periphery

C. border

D. overlapping zone

Answer: A

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2. _____ is defined as the phenomenon of accumulation of higher concentration of molecules of one substance on the active surface of other substance than in the bulk due to unbalanced force of attraction.

A. Adsorption

B. Absorption

C. dispersion

D. suspension

Answer: A

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3. The process of removal of an adsorbed substance from the surface is known as _____.

A. desorption

B. Absorption

C. dispersion

D. suspension

Answer: A

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4. Which of the following statements is INCORRECT regarding the adsorption of a gas on the solid ?

A. It is a surface phenomenon.

B. It depends on the surface area of the adsorbent.

C. It is accompanied with evolution of heat.

D. It occurs at uniform rate.

Answer: D

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5. If the adsorbate is held on the surface of an adsorbent by force of van der Waals type, the adsorption is called

A. Chemisorption

B. Absorption

C. Physisorption

D. Biosorption

Answer: C

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6. _____ is the process in which adsorbate molecules are held on the adsorbent by chemical bonds.

A. Chemisorption

B. Physical adsorption

C. Absorption

D. Adsorption

Answer: A

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7. The heat of physisorption lie in the range of

A. $20 - 40 \ \ \text{kJ mol}^{-1}$

B. $40 - 100 \ \ \text{kJ mol}^{-1}$

C. $100 - 400 \ \ \text{kJ mol}^{-1}$

D. $200 - 400 \ \ \text{kJ mol}^{-1}$

Answer: A

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8. Heat evolved during chemisorption lies in the range of

A. $10 - 20 \ \ \text{kJ mol}^{-1}$

B. $20 - 40 \ \ \text{kJ mol}^{-1}$

C. $40 - 200 \ \ \text{kJ mol}^{-1}$

D. $500 - 1000 \ \ \text{kJ mol}^{-1}$

Answer: C

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9. The extent of physical adsorption _____.

A. decreases with the rise in temperature

B. increases with the rise in temperature

C. is independent of temperature

D. first increases and then decreases with rise in temperature

Answer: A

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10. Which of the following processes of adsorption is endothermic?

A. Adsorption of acetic acid is solution by charcoal.

B. Adsorption of oxalic acid in solution by charcoal.

C. Adsorption of hydrogen on glass.

D. Adsorption of CO on tungsten.

Answer: C

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11. Which of the following is an example of both physical adsorption and chemical adsorption?

A. Adsorption of acetic acid is solution by charcoal.

B. Adsorption of CO on tungsten.

C. Adsorption of O_2 on tungsten.

D. Adsorption of H_2 on Ni.

Answer: D

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12. The relationship between equilibrium pressure of a gas and its amount adsorbed per unit mass of the solid adsorbent in constant temperature is called _____.

A. chemisorption isochore

B. adsorption isobar

C. adsorption isotherm

D. physical adsorption isobar

Answer: C

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13. Freundlich adsorption isotherm is

A. $\frac{x}{m} = k\log P^{1/n}$

B. $\frac{m}{x} = k\log P^{1/n}$

C. $\frac{m}{x} = \frac{1}{kP^{1/n}}$

D. $\frac{x}{m} = \frac{1}{kP^{1/n}}$

Answer: C

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14. Catalysis is the phenomenon of accelerting the rate of the reaction _____.

A. by increasing reactant concentration

B. by using a catalyst

C. by increasing the temperature

D. by constant removal of products

Answer: B

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15. Which of the following changes when catalyst is used in a reaction?

A. Heat of reaction

B. Product of reaction

C. Equilibrium constant

D. Activation energy

Answer: D

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16. The substance which decreases the rate of a chemical reaction is called :

A. inhibitor

B. catalyst

C. promoter

D. reactor

Answer: A

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17. In the chloroform solution, 2% ethanol is added, which acts as

A. promotor

B. autocatalyst

C. inhibitor

D. enzyme

Answer: C

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18. In homogeneous catalysis, the reactants are in gaseous phase, so that catalyst must be in _____.

A. solid phase

B. gaseous phase

C. liquid phase

D. aqueous phase

Answer: B

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19. Which of the following represents heterogeneous catalysis ?

A.

$$2C_2H_5OH_{(l)} \xrightarrow{\text{conc. } H_2SO_4} C_2H_5OC_2H_{5(aq)} + H_2O_{(l)}$$

B. $2CO_{(g)} + O_{2(g)} \xrightarrow{NO_{(g)}} CO_{2(g)}$

C. $SO_{2(g)} + \frac{1}{2}O_{2(g)} \xrightarrow{NO_{(g)}} SO_{3(g)}$

D. $SO_{2(g)} + \frac{1}{2}O_{2(g)} \xrightarrow{V_2O_{5(s)}} SO_{3(g)}$

Answer: D

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20. During hydrogenation of oils the catalyst commonly used is

A. Gallium

B. Nickel

C. Iron

D. V_2O_5

Answer: B

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21. A finely divided state of the catalyst is more efficient because in this state :

A. it raises the activation energy

B. it has larger surface area

C. it can react with one of the products more efficiently

D. it can shift the position of equilibrium

Answer: B

22. The substances, which do NOT act as catalyst but when added to reaction increase the activity of the catalyst are called _____.

A. inhibitors

B. promoters

C. autocatalysis

D. poisons

Answer: B

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23. The product of the following reaction is _____.

$C_2H_{4(g)} + O_2 \xrightarrow{Pd/Al_2O_3}$.

A. acetaldehyde

B. ethylene oxide

C. ethanol

D. ethane

Answer: A

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24. Enzymes usually are _____.

A. carbohydrates

B. proteins

C. inorganic compounds

D. nucleic acids

Answer: B

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25. Enzyme have high molecular mass ranging between _____.

A. 10^4 to 10^6 amu

B. 10^5 to 10^6 amu

C. 10^3 to 10^5 amu

D. 10^2 to 10^6 amu

Answer: A

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26. The enzymes which can be hydrolyse starch to glucose is

A. invertase

B. zymase

C. amylase

D. cellulase

Answer: C

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27. Enzyme catalase catalyses _____ .

A. decomposition of hydrogen peroxide

B. decomposition of water

C. formation of glucose

D. hydrolysis of starch

Answer: A

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28. A handful of sand is stirred into water. The mixture will be

A. colloidal dispersion

B. true solution

C. coarse suspension

D. homogeneous mixture

Answer: C

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29. The size of colloidal particle is

A. 10^{-9} to $10^{-6}m$

B. 10^{-9} to $10^{-12}m$

C. 10^{-3} to $10^{-9}m$

D. 10^{-12} to $10^{-19}m$

Answer: A

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30. Colloidal dispersion is a _____.

A. true solution

B. complex solution

C. heterogenous system

D. homogeneous system

Answer: C

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31. Which of the following is NOT colloidal in nature?

A. Milk of magnesia

B. Milk

C. Fog

D. Dilute sulphuric acid

Answer: D

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32. How many colloidal systems exist in nature?

A. 7

B. 9

C. 6

D. 8

Answer: D

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33. Colloidal system of solid dispersed in a gaseous dispersion medium is called a/an _____.

A. gel

B. foam

C. emulsion

D. aerosol

Answer: D

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34. The colloidal system in which the disperse phase and dispersion medium are both liquids is known as :

A. gel

B. foam

C. emulsion

D. aerosol

Answer: C

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35. An example of emulsion is _____.

A. rubber

B. milk

C. paint

D. cheese

Answer: B

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36. Which is not a colloidal solution of gas in liquid

A. Froth

B. Shaving cream

C. Mist

D. Whipped cream

Answer: C

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37. Which of the following is an example of solid - solid system?

A. Cake

B. Pumice stone

C. Gold in glass

D. Smoke

Answer: C

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38. Jelly is a form of _____.

A. suspension

B. colloidal solution

C. supersaturated solution

D. true solution

Answer: B

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39. Which of the following is an example of lyophobic sol?

A. Rubber in benzene

B. Cellulose acetate in acetone

C. Cellulose nitrate in acetone

D. Gold sol

Answer: D

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40. Which of the following is NOT an example of multimolecular colloid?

A. Gold sol

B. Sulphur sol

C. Silver sol

D. Aqueous solution of a protein

Answer: D

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41. Tyndal effect in a colloid is due to

A. polarization

B. scattering

C. diffraction

D. converging

Answer: B

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42. When a beam of light is passed through a colloidal solution and observed under ultramicroscope, we can see _____.

A. shape of the colloidal particles

B. relative size of the colloidal particles

C. fluorescence

D. flashes of light

Answer: D

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43. One significant difference between true solutions and colloidal solution is that colloidal solution _____.

A. are clear

B. will pass through an ordinary filter - paper

C. show the Tyndall effect

D. will not separate out on standing

Answer: C

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44. The movement of colloidal particles is _____.

A. circular

B. linear

C. elliptical

D. random

Answer: D

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45. Brownian movement is due to _____.

A. temperature fluctuations within the liquid phase

B. attraction and repulsion between charges on colloidal particles

C. bombardment of molecules of the dispersion medium on he colloidal particles

D. convection currents

Answer: C

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46. Movement of colloidal particles under the influence of electrostatic field is

A. Brownain movement

B. electrophoresis

C. coagulation

D. Tyndall effect

Answer: B

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47. The coagulation of sol particles may be brought in by :

A. shaking it vigorously

B. the action of atmospheric oxygen

C. the addition of electrolyte

D. allowing it to stand for some time

Answer: C

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48. Nanomaterials should have at least on dimension between

A. 0.01 nm to 0.1 nm

B. 1 m to 10 m

C. 1 nm to 100 nm

D. 1 cm to 100 cm

Answer: C

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49. Gold nanoparticles are _____ in colour, whereas bulk gold metal is yellow.

A. white

B. black

C. red

D. violet

Answer: C

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50. _____ nanotubes are used as strengthening rods and toughening elements in structural composite materials.

A. Tin

B. Iron

C. Copper

D. Carbon

Answer: D

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51. When irradiated with UV - light, nanoparticles emit visible light. The wavelength of this visible light is _____.

A. independent of any factors

B. dependent on wavelength of the UV - light

C. dependent on size of the nanoparticles

D. always 700 nm

Answer: C

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52. Metal oxide nanoparticles are used in _____.

A. selective oxidation catalysis

B. dirt repellent paints

C. in structural composites as toughening elements

D. biological warfare

Answer: B

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53. Difference in between crystallid and colloid is of :

A. concentration

B. electrical conductivity

C. particle composition

D. particle size

Answer: D

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Critical Thinking

1. In the adsorption of oxalic acid on activated charcoal, the activated charcoal is called

A. adsorbate

B. adsorbent

C. absorber

D. none of these

Answer: B

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2. In general, physical adsorption is greater at _____.

A. low temperature and low pressure

B. high temperature and low pressure

C. low temperature and high pressure

D. high temperature and high pressure

Answer: C

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3. Which of the following will favour the reversal of physical adsorption?

A. Increasing the pressure of the gas and decreasing the temperature of the surface.

B. Decreasing the pressure of the gas and increasing the temperature of the surface.

C. Decreasing both, the pressure of the gas and the temperature of the surface.

D. Increasing both, the pressure of the gas and the temperature of the surface.

Answer: B

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4. Chemisorption is a slow process because _____.

A. if forms monomolecular layer

B. it is specific in nature

C. it takes place at normal temperature

D. it requires high activation enegy

Answer: D

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5. Which of the following statements is true for chemical adsorption

A. It involves formation of a surface compound.

B. Heat of adsorption is high.

C. It is generally exothermic.

D. It occurs only at optimum temperature.

Answer: B,C,D

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6. The gas, which is adsorbed in minimum amount by activated charcoal is _____.

(Critical temperature of SO_2: $430\ \mathrm{K}$, $\mathrm{Cl}_2 : 417K$, $NH_3 = 406\ \mathrm{K}$ and $N_2 : 126K$)

A. SO_2

B. Cl_2

C. NH_3

D. N_2

Answer: D

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7. Which of the following statements is INCORRECT?

A. For a given mass, finely divided platinum is a good adsorbent compared to a large piece of platinum metal.

B. Charcoal is an effective adsorbent due to its porous nature.

C. A gas cannot be liquefied above its critical temperature.

D. For a given mass, nickel metal sheet having smooth surface is a good adsorbent compared to nickel metal sheet having rough surface.

Answer: D

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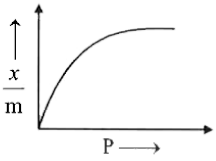
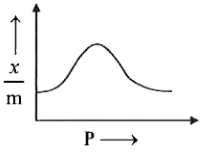
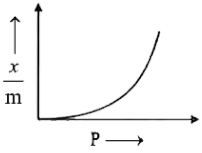
8. Which of the following graph CORRECTLY shows the variation of $\frac{x}{m}$ with P according to Freundlich equation?

A. 

B. 

C.

D. 

Answer: A

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9. Which of the following statement regarding catalyst is not true?

A. A catalyst remain unchanged in composition and quantity at the end of the reaction.

B. A catalyst can never initiate a chemical reaction.

C. Extremely small amount of catalyst is sufficient to catalyse a reaction.

D. Catalysts are very specific in nature.

Answer: B

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10. The decomposition of hydrogen peroxide can be slowed by the addition of a small amount of acetamide.

The latter acts as a

A. detainer

B. stopper

C. promoter

D. inhibitor

Answer: D

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11. Acid catalyzed hydrolysis of ethyl acetate by water is an example of _____.

A. heterogeneous catalysis

B. autocatalysis

C. homogenous catalysis

D. induced catalysis

Answer: C

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12. Haber's process is an example of _____.

A. homogeneous catalysis

B. heterogeneous catalysis

C. enzyme catalysis

D. uncatalysed reaction

Answer: B

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13. Which of the following statements is INCORRECT?

A. Heterogeneous catalysis does not dissolve in the reacting mixture.

B. Homogenous catalyst cannot be easily separated from the products of reaction.

C. The rate of homogeneous catalysis is proportional to the surface area of catalysis.

D. Heterogeneously catalysed reactions are slower than those which are homogeneously catalysed.

Answer: C

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14. Catalytic converters in automobiles are poisoned by

A. Pt

B. Pd

C. Rh

D. Pb

Answer: D

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15. The products of the following reaction are _____, respectively.

i. $C_2H_5OH \xrightarrow{\text{hot. } Al_2O_3}$

ii. $C_2H_5OH \xrightarrow{\text{hot Cu}}$

A. acetaldehyde, ethene

B. ethene, acetaldehyde

C. ethane, ethanol

D. ethanol, ethylene oxide

Answer: B

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16. Which of the following is FALSE regarding lock and key concept of enzyme catalysis?

A. An enzyme molecule has one or more active sites at which a specific substrate (reactant) molecules fits.

B. The active site acts like a lock.

C. The product acts acts as a key.

D. The active site returns to its original state after the products are released.

Answer: C

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17. Enzyme hexokinase catalyzes the _____.

A. conversion of sucrose of glucose and fructose

B. reaction of CO_2 with water in human body

C. hydrolysis of maltose to glucose.

D. conversion of glucose to glucose - 6 - phosphate in human body

Answer: D

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18. Which of the following forms a colloidal solution in water?

A. NaCl

B. Glucose

C. Starch

D. Barium nitrate

Answer: C

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19. Which of the following statements is FALSE for a lyophobic sol?

A. The disperse phase has low affinity for the dispersion medium.

B. It can be precipitated by adding small amount of electrolytes.

C. It is reversible in nature.

D. It is less stable.

Answer: C

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20. Which of the following statements is INCORRECT?

A. Surface tension of a lyophilic sol is lower than that of dispersion medium.

B. Surface tension of a lyophobic sol is same as that of dispersion medium.

C. Viscosity of a lyophilic sol is greater than that of dispersion medium.

D. Viscosity of a lyophobic sol is lower

Answer: D

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21. Which of the following is not a group of macromolecular colloids?

A. Aqueous polymer solution

B. Sulphur Sol

C. High polymeric material in organic solvent

D. Aqueous protein solution

Answer: B

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22. Brownian motion shown by colloidal particle is its _____ property :-

A. optical

B. electrical

C. kinetic

D. magnetic

Answer: C

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23. The charge on colloidal particles is due to the _____.

A. adsorption of charged species by disperse phase

B. formation of aggregates

C. collisions of disperse phase particles with molecules of dispersion medium

D. viscosity of the medium

Answer: A

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24. Addition of $AgNO_3$ solution to an excess of dilute NaI solution results in _____.

A. negatively charged sol

B. positively charged sol

C. neutral sol

D. mutual coagulation

Answer: A

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25. the electrical charge on a colloidal particle is indicated by :

A. electrophoresis

B. scattering of light

C. Geiger-Muller counter

D. Mulliken oil drop experiment

Answer: A

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26. Ferric hydroxide sol is positively charged colloid. The coagulating power of NO_3^- , SO_4^{2-} and PO_4^{3-} ions would be in the order

A. $NO_3^- > SO_4^{2-} > PO_4^{3-}$

B. $SO_4^{2-} > NO_3^- > PO_4^{3-}$

C. $PO_4^{3-} > SO_4^{2-} > NO_3^-$

D. $NO_2^- = SO_4^{2-} = PO_4^{3-}$

Answer: C

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27. When two oppositely charged sols are mixed, _____.

A. one of them gets precipitated

B. one sol forms protective layer on the other sol

C. positively charged sol is coagulated

D. both sols are coagulated

Answer: D

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28. In case of oil in water emulsion, which of the following is NOT true?

A. When small amount of an electrolyte is added, the emulsion becomes conducting.

B. When oil is added, a separate layer is formed.

C. When water is added, water is readily miscible.

D. Oil is continuous phase.

Answer: D

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29. Nanomaterials _____.

A. have same melting point as their bulk material

B. have same colours as the bulk material

C. are less reaction than bulk material

D. have lower melting points than their bulk material

Answer: D

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30. Modified quantum dot nanoparticles _____.

A. can form chemical bond with specific biomolecule

B. acts as a carcinogen

C. acts as selective oxidation catalyst

D. can form artifical DNA for tissue culture

Answer: A

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Competitive Thinking

1. Which among the following statement is false?

A. The adsorption way be monolayered or mutilayered.

B. Particle size of adsorbent will not affect the amount of adsorbent will not affect the amount of adsorption.

C. Increase of pressure increases amount of adsorption.

D. Increase of temperature may decrease the amount of adsorption.

Answer: B

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2. Which of the following statement is incorrect for physical adsorption?

A. Monomolecular layer forms on the adsorbent

B. It is instantaneous.

C. Less activation energy is required for it.

D. Generally, it results at low temperature and adsorption decreases with increase in temperature.

Answer: A

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3. At a given temperature nd pressure, adsorption of which gas out of the following will take place the mose?

A. Dihydrogen

B. Dioxygen

C. Ammonia

D. Dinitrogen

Answer: C

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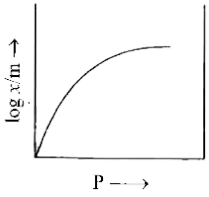
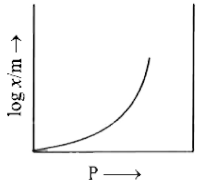
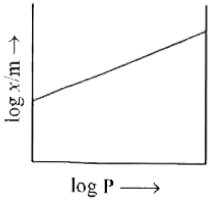
4. Which of the following curves is in accordance with Freundlich adsorption isotherm?

A. 

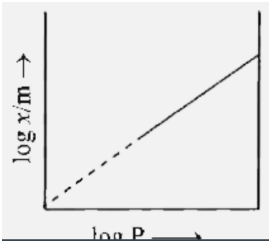
B.



C.



D.



Answer: C

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5. For a linear plot of log (x/m) versus log p in a Freundlich adsorption isotherm, which of the following statements is correct ? (K and n are constants)

A. Both k and $\frac{1}{n}$ appear in the slope term.

B. $\frac{1}{n}$ appears as the intercept.

C. Only $\frac{1}{n}$ appears as the slope.

D. $\log\left(\frac{1}{n}\right)$ appears as the intercept.

Answer: C

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6. The slope and intercept of Freundlich adsorption isotherm will be respectively:

A. $n, \log. \frac{1}{k}$

B. $\frac{1}{n}, \log k$

C. $\log n, \frac{1}{k}$

D. $n, \log k$

Answer: B

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7. Which is not the characteristic of a catalyst ?

A. It is changes the equilibrium constant.

B. It alters the reaction the rate of reaction.

C. It increases the rate of reaction.

D. It increases the average K.E. of the molecules.

Answer: A

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8. Which of the following statements is NOT correct?

A. The value of equilibrium constant is changed in the presence of a catalyst in the reaction at equilibrium.

B. Enzymes catalyse mainly biochemical reactions.

C. Coenzymes increase the catalytic activity of enzyme.

D. Catalyst does not initiate any reaction.

Answer: A

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9. The role of a catalyst in a reversble reaction is to

A. increase the rate of forward reaction

B. decrease the rate of backward reaction

C. alter the equilibrium constant of the reaction

D. allow the equilibrium to be achieved quickly

Answer: D

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10. The transition metal used as a catalyst is

A. nickel

B. platinum

C. paladium

D. all of these

Answer: D

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11. A biological catalyst is

A. an amino acid

B. a carbohydrate

C. a lipid molecule

D. an enzyme

Answer: D

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12. For the functioning of enzymes, which of the following statements is NOT correct?

A. An optium temperature is needed.

B. An optimum pH is needed.

C. They are substrate specific.

D. They always increase activation energy.

Answer: D

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13. The effieciency of an enzyme in catalysing a reaction is due to its capacity

A. to form a strong enzyme - substrate complex

B. to decrease the bond energies of substrate molecule

C. to chagne the shape of the substrate molecule

D. to lower the activation energy of the reaction

Answer: D

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14. Suspensions are _____ .

A. visible to naked eye

B. invisible through microscope

C. not visible by any means

D. invisible under electron microscope

Answer: A

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15. Fog is a colloidal solution of

A. solid in gas

B. gas in gas

C. liquid in gas

D. gas in liquid

Answer: C

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16. Lyophilic sols have _____.

A. High surface tension

B. High viscosity

C. Low stability

D. No solvation

Answer: B

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17. Which of the following is lyophboic colloidal solution?

A. Aqueous starch solution

B. Aqueous protein soltuion

C. Gold sol

D. Polymer solvent in some organic solvents

Answer: C

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18. the stability of lyophilic colloids is due to

A. charge on their particles

B. a layer of dispersion medium on their particles

C. the smaller size of their particles

D. the large size of their particles

Answer: B

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19. Gold sol is not a

A. a macro molecular colloid

B. a lyophobic colloid

C. a multimolecular colloid

D. negatively charged colloid

Answer: A

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20. Sulphur sol contains :

A. Discrete S - atoms

B. Discrete S - molecules

C. Large aggregates of S - molecules

D. Water dispersed in solid sulphur

Answer: C

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21. Which of the following colloids cannot be easily coagulated ?

A. Lyophobic colloids

B. Multimolecular colloids

C. Macromolecular colloids

D. Irreversible colloids

Answer: C

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22. The colour of different gold differ due to

A. variable valency of gold

B. different concentration of gold particles

C. different types of impurities

D. different radius of colloidal particles

Answer: D

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23. which characteristic is true in respect of colloidal particle?

A. They always have two phases.

B. They are only in liquid state.

C. They can't be electrolysed.

D. They are only hydrophilic.

Answer: A

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24. The ability of ion to bring about coagulation of a given collidal solution depends upon

A. its size

B. the magnitude of its charge only

C. the sign of its charge

D. both the magnitude and the sign of its charge

Answer: D

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25. The correct order of the flocculating power in the coagulation of a positive sol is

A. $PO_4^{3-} > SO_4^{2-} > Cl^-$

B. $Cl^- > SO_4^{2-} > PO_4^{3-}$

C. $Cl^- > PO_4^{3-} > SO_4^{2-}$

D. $SO_4^{2-} > Cl^- > PO_4^{3-}$

Answer: A

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26. The amount of electrolytes required to coagulate a given amount of AgI colloidal solution ($-ve$ charge) will be in the order _____.

A. $NaNO_3 > Al(NO_3)_3 > Ba(NO_3)_2$

B. $Al(NO_3)_3 > Ba(NO_3)_2 > NaNO_3$

C. $Al(NO_3)_3 > NaNO_3 > Ba(NO_3)_2$

D. $NaNO_3 > Ba(NO_3)_2 > Al(NO_3)_3$

Answer: D

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27. Milk is dispersion of _____ .

A. fats in oil

B. fats in water

C. water in fats

D. water in oil

Answer: B

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28. Light scattering takes place in:

A. solutions of electrolyte

B. colloidal solution

C. electrodialysis

D. electroplating.

Answer: B

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Evaluation Test

1. A negatively charged suspension of clay in water will need for precipitation the minimum amount of

A. $AlCl_3$

B. $MgCl_2$

C. KCl

D. $NaOH$

Answer: A

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2. The straight line in Freundlich adsorption isotherm is obtained on plotting a graph of _____.

A. $\frac{x}{m} vs P$

B. $\log. \frac{x}{m} vs P$

C. $\log. \frac{x}{m} vs \log P$

D. $\frac{x}{m} vs \frac{1}{P}$

Answer: C

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3. In the reactions $2SO_2 + O_2 \xrightarrow[As_2O_3]{Pt} 2SO_3$, As_2O_3 acts as a

A. autocatalyst

B. catalytic posion

C. promoter

D. positive catalyst

Answer: B

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4. The dispersed phase and dispersion medium in soap lather are respectively :

A. gas and liquid

B. liquid and gas

C. solid and gas

D. solid and liquid

Answer: A

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5. In an electrophoresis experiment, the boundary between sol and water falls on chathode side. Which of the following sol was used in this experiment

A. AgI/I^- sol

B. $Fe(OH)_3$ sol

C. As_2S_3 sol

D. None of these

Answer: B

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6. Which of the following statements is INCORRECT?

A. A sol can be precipitated by adding oppositely charged sol to it.

B. A sol can be precipitated by persistent dialysis or electrophoresis.

C. Lyophilic sol require only small amount of electrolyte to effect coagulation.

D. Addition of solvent method is useful to effect coagulation of lyophilic sol.

Answer: C

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7. Which of the following is INCORRECT for oil in water emulsion?

A. Oil is the dispersed phase white water is the dispersion medium.

B. Water is miscuble with oil in water emulsion.

C. Addition of small amount of electrolyte makes the emulsion conducting.

D. Oil is continuous phase.

Answer: D

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8. Which metals are the most active as catalyst?

A. Metals that belong to s-block

B. Metals that belong to the bottom of d-block

C. Metals that belong to the bottom of p-block

D. Metals that belong to the middle of f-block.

Answer: B

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9. Which of the following ions is the effective coagulating agent?

A. Na^+

B. Ba^{2+}

C. Al^{3+}

D. Sn^{4+}

Answer: D

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10. Which of the following is contributed towards the extra stability of lyophilic colloids?

A. Hydration

B. Charge

C. Brownian

D. Tyndall effect

Answer: A

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