

**MCQs - PHYSICAL PHARMACY**

QN	Question	Option 1	Option 2	Option 3	Option 4
1	Which form of drug shows higher solubility	Stable	Metastable	Unstable	All of above
2	Andreason pipette utilises principle of	Sedimentation	Centrifugation	Compaction	Filtration
3	Rate of reaction can be incresed by	Pramotor	Enhancer	Catalytic poison	Catalyst
4	Autocatalysis refers to	When substrate acts as catalyst	When product acts as catalyst	Both a & b	None of above
5	Free & Blyth method is use to study	Thixotropy	Accelarated stability	Electrical properties	Particle size
6	DuNoys ring method is used for	S.T.Measurment	Viscosity determination	R.I calculation	HLB calculation
7	SLS has an HLB of	10	14	40	18
8	Particle particle interaction is studied using	Nernst potential	Zeta potential	Surface potential	Log potential
9	CMC refers to	Aggregation of surfactant	Aggregation of particles	Coagulation of particles	None of above
10	Kinemetic viscosity is	Viscosity/Kinetic energy	Viscosity / S.T.	Viscosity/Density	Viscosity/Mol.wt.
11	Flocculated suspension follows	Plastic flow	Pseudoplastic flow	Dialetent flow	Newtonian flow
12	Colloidal particles have size from	0.5 micron to 10 micron	1 nm to 0.5 micron	10 micron to 100 micron	0.1 nm to 1 nm
13	Browian motion referes to	Zig zag motion of particles	Criss cross motion of particles	setteltment of particles	All the above
14	Gold no is related to	Coagulation of gold sol	Coagulation of Ag sol	Coagulation of Cu sol	Coagulation of Al sol

15	As per Schulz-Hardy rule, coagulation of colloids is based on	Valency of electrolyte	RI of electrolyte	Surface charge of electrolyte	Viscosity of electrolyte
16	Minimum temp at which surfactant forms micelle is called as	Cloud point	Kraft point	Turbidity point	Critical point
17	Electrophoresis refers to	Settlement of particles	Migration of particles to opposite electrode	Sedimentation of particles	Zig-Zag motion of particles
18	Flocculated suspension forms	Loose cake easy to resuspend	Hard cake difficult to resuspend	Loose aggregates of particles	Floccules easy to resuspend
19	Structured vehicles are used in dispersion system because	They increase density of medium	They increase viscosity of medium	They decrease viscosity of medium	They decrease density of medium
20	Oriented wedge theory is related to	Stability of colloids	Stability of surfactants	Stability of emulsion	Stability of suspension
21	Particle size distribution is important	Derived property	Bulk property	Chemical property	Fundamental property
22	One of the following is structured vehicle added in suspension	Tragacanth	Pectin	Hectorite	Casein
23	Excellent flow is observed when angle of repose is	41-45 degrees	56-65 degrees	more than 66 degrees	25-30 degrees
24	Poor flow of powder is observed when	Hausner's ratio is more than 1.25	Hausner's ratio is less than 1.25	Hausner's ratio is 1.25	None of above
25	Propellants are used in aerosols to	for cooling	As an excipient	Create pressure	decrease pressure
26	Linde's method for liquefaction is based on	Adiabatic cooling	Joule-Thomson effect	Cooling with freezing mixture	All the above
27	Melting of solid is example of	Exothermic reaction	Endothermic reaction	Both	None of above
28	Entropy refers to	Degree of orderliness	Perfect predictability	Organised arrangement	Degree of randomness

29	Hixon crowel cube root law is related to	Tablet dissolution	Powder dissolution	Emulsion dissolution	Suspension dissolution
30	Noys & whitneys equation is used to study	Diffusion	Solubility	Osmosis	Dissolution
31	Raoult's law is applicable to	Real solutions	Homogenous solutions	True suspension	Ideal solution
32	Swelling/Brusting of RBCs is seen with use of	Isotonic solutions	Hypotonic solutions	Hypertonic solutions	Isoosmotic solutions
33	Solubility of gases in liquids is depends on	Temperature	Pressure	Salting out	All the above
34	The following ion plays important role in the prevention of dental caries.	Fluoride	Calcium	Iron	Zinc
35	Concentrated Hydrochloric acid contains	35 – 38 % weight of HCl	95-100 % weight of HCl	98-102 % weight of HCl	95- 105 % weight of HCl
36	Adsorption is	Bulk Phenomenon	Surface Phenomenon	Critical Phenomenon	All the above
37	Carr's index is used to predict	Viscosity	Porosity	Flow property	Rugosity
38	Pycnometer is used to determine	Density	Refractive index	Angle of repose	Porosity
39	In aerosols, fine droplets of spray are produced using	Nebulizer	Atomizer	Propellant	Sprayer
40	Polymorphism is commonly observed in	Sulfonamides	Antifungal agents	Enzymes	Antibiotics
41	The process of mass transfer of solute from higher concentration to lower is referred as	Solubilization	Diffusion	Complexation	Dissolution
42	Polymorphism is a phenomenon in which a substance exist in	More than one crystalline form	Recemic form	Optically active form	Single form
43	Scattering of light is shown by	Emulsion	Colloidal particles	Suspension	Homogenous solutions
44	A property that depends on number of particles is called	Constitutive property	Colligative property	Additive property	Additive & constitutive
45	HLB range for wetting agents is	14 to 16	8 to 16	3 to 8	7 to 9
46	Half life of first order reaction is represented by	1/K	Log K	0.693/K	2.303/K
47	The concentration of surfactant at which micelles formation starts is	Zero micelles concentration	Low micelles concentration	High micelles concentration	Critical micelles concentration

48	Liquification of gases can be achieved at	Increased pressure	Increased Temperature	Decreased temperature	Both A & C
49	The application of Noyes-Whitney equation is to describe	<i>First order kinetics</i>	Zero order kinetics	Mixed order kinetics	Dissolution rate
50	Emulsion containing more than two phases is called as	Mixed emulsion	Complex emulsion	Multiple emulsion	Homogeneous emulsion
51	Stalagmometer is used to determine	Bulk density	Surface tension	Porosity	Refractive index
52	Surfactants are characterized by presence of	Only hydrophilic groups	Only lipophilic groups	Both hydrophilic and lipophilic groups	Neither hydrophilic nor lipophilic groups
53	Surface tension is usually determined using	Free & Blyth method	Ebullioscopy method	BET adsorption method	Du Nouy method
54	For topical aerosols, which of the following propellant is commonly used	Trichloro-monofluoro-methane	Propane	Nitrous oxide	n-Butane
55	Coulter counter is used to determine	Refractive Index	Surface Area	Particle Size	Partition
56	Micronization leads to increase in solubility of drug due to	Increased porosity	Increased surface area	Increased angle of repose	Increased surface texture
57	Solubility of drug depends on following factors except	Dielectric constant	pKa of drug	pH of solution	Valency
58	Tyndall effect refers	Scattering of light	Diffraction of light	Polarization of light	Reflection of light
59	The phenomenon of increase in solubility of drugs by addition of additives is called	Monotropy	Hydrotropy	Enantiotropy	Aquatropy
60	Hot gaseous clouds of atoms is known as	Plasma	Gas	Solid	Mesophase