

W-2022

Seat Number

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PANKH-36

BP-403T

Physical Pharmaceutics-II

(724403)

Total Pages : 4]

Time : 3 Hours

Max Marks : 75

- Note :** (1) Do not write anything on question paper except seat no.
(2) Graph or diagram should be drawn with the black ink pen for writing paper or black HB pencil.
(3) Students should note, no supplement will be provided.
(4) All questions are compulsory.
(5) Figures to the right indicate full marks.

1. (A) Choose the correct answer of the following : 10
- (i) Faraday Tyndall effect is observed by.....
- (a) Light microscopy (b) Ultramicroscope
(c) Radiography (d) None of these
- (ii) Property of fluid that describe its internal resistance is known as.....
- (a) Viscosity (b) Friction
(c) Resistance (d) Internal energy
- (iii) Microscopic particles can be separated by.....
- (a) Ultra Filtration (b) Filtration
(c) Dialysis (d) All of these

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- (iv) Colloids of copper is used as.....
(a) Anticancer (b) Antibiotics
(c) Antibacterial (d) None of these
- (v) The particle size in such sieve range can be found by gravity sedimentation as expressed in
(a) Van't hof factor (b) Ohm's law
(c) Stokes' law (d) Graham's law
- (vi) Dilatant flow is characterized as a reverse phenomenon of.....
(a) Newtonian flow (b) Plastic flow
(c) Pseudoplastic flow (d) Rheopexy
- (vii) Silica gel is an example for the type of gel.....
(a) Dilatant (b) Elastic
(c) Rigid (d) Thixotropic
- (viii) During storage crystal growth is observed in a suspension due to.....
(a) Absorption of water
(b) Fluctuation in the ambient temperature
(c) Presence of suspending agent
(d) Volatilization of solid
- (ix) Usually the rate of chemical may be enhanced by.....
(a) Cooling the reaction mixture
(b) Increasing the rate of stirring.
(c) Raising the temperature of the reaction mixture.
(d) Using Stoichiometric quantities of each reactant.

(ix) When Coulter-counter apparatus is employed for powder analysis the following criterion is important ?

- (a) Dispersion medium should be coloured.
- (b) Dispersion medium should be conduction.
- (c) Suspended particle should be charged.
- (d) Suspended particle should be spherical.

(B) Answer following questions :

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- (i) Differentiate between flocculated and deflocculated suspension.
- (ii) What is HLB ? Write its importance.
- (iii) Define Rheology. Gives its *four* applications.
- (iv) Give Heckel equation.
- (v) Explain in brief gold number.

2. Attempt any *two* :

20

- (i) Define Colloids. Write in detail Optical and Kinetic properties of Colloids.
- (ii) What is micromeritics ? Enlist various method to determine particle size. Explain Coulter-counter method in detail.
- (iii) Explain objective and various methods for accelerated stability testing.

3. Attempt any *seven* :

35

- (i) Explain in detail theories of emulsification.
- (ii) Discuss Newtonian System in detail.

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- (iii) Explain the concept of Electric Double Layer.
- (iv) Explain in detail method of preparation of Suspension.
- (v) Write a note on Sieving method.
- (vi) Give in detail derived properties of powder.
- (vii) Give in detail DLVO theory.
- (viii) Write a note on Faradays Tyndall effect.
- (ix) What is thixotropy ? Give its measurement.