

Code No: BP403T

PCI

SET - 1

II B. Pharmacy II Semester Regular Examinations, April/May - 2019
PHYSICAL PHARMACEUTICS-II

Time: 3 hours

Max. Marks: 75

- Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
 2. Answer ALL (Multiple Choice) Questions from **Part-I**
 3. Answer any **TWO** Questions from **Part-II**
 4. Answer any **SEVEN** Questions from **Part-III**

PART -I

1. (i) Suspension is an example of which type of dispersed system (1M)
 (a) Coarse dispersion (b) Colloidal dispersion
 (c) Molecular dispersion (d) None
- (ii) Rubber forms lyophilic colloid insolvent (1M)
 (a) Aqueous (b) Nonaqueous (c) Organic solvents (d) both b& c
- (iii) Faraday-Tyndall effect explains.....properties of colloids (1M)
 (a) Optical (b) Electrical (c) Kinetic (d) Biological
- (iv) Random movement of colloidal particles (1M)
 (a) Brownian motion (b) Diffusion (c) Osmosis (d) Sedimentation
- (v) Sorbitan monooleate issurfactant (1M)
 (a) Anionic (b) Cationic (c) Nonionic (d) Amphoteric
- (vi) Instability of pharmaceutical emulsion (1M)
 (a) Creaming (b) Coalescence (c) Phase inversion (d) all the above
- (vii) The velocity of sedimentation explained by (1M)
 (a) Stoke's law (b) Newton's law (c) Raoult's law (d) Beer's law
- (viii) Suspensions stabilized bysurfactants (1M)
 (a) Anionic (b) Cationic (c) Non-ionic (d) Amphoteric
- (xi) Coulter counter is used to measureof particles (1M)
 (a) Volume (b) Sedimentation (c) Surface area (d) Density
- (x) Reciprocal of bulk density is (1M)
 (a) Bulkiness (b) Porosity (c) Adsorption (d) Compaction
- (xi) Porosity expressed by (1M)
 (a) μ (b) α (c) ε (d) Ω
- (xii) Which method uses a series of standard sieves to measure particle size (1M)
 (a) Sieving (b) adsorption (c) air permeability (d) Microscopy
- (xiii) Units of kinematic viscosity (1M)
 (a) stoke (b) centistoke (c) both a & b (d) dyne/cm
- (xiv) Bingham bodies exhibit (1M)
 (a) Plastic (b) Pseudoplastic (c) Dilatant (d) all the above
- (xv) Determination of viscosity by measuring the time required for the liquid to pass between two marks in vertical capillary tube (1M)
 (a) Ostwald viscometer (b) Cup& bob (c) Cone& plate (d) Stormer
- (xvi) A plot of shear rate versus shear stress (1M)
 (a) Histogram (b) Rheogram (c) Rheology (d) Micromeritics

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- (xvii) The period of time required for a drug to decompose to one-half of the original concentration (1M)
(a) Shelf life (b) Half-life (c) Rate constant (d) log c
- (xviii) The reaction rate increases with (1M)
(a) Increase in temperature (b) Decrease in temperature
(c) Room temperature (d) a&c
- (xix) Pharmaceutical decomposition (1M)
(a) Hydrolysis (b) Photolysis (c) Oxidation (d) all the above
- (xx) The units for the rate constant in zero order (1M)
(a) moles $\text{lit}^{-1}\text{sec}^{-1}$ (b) sec^{-1} (c) $\text{lit sec}^{-1}\text{mol}^{-1}$ (d) mol^{-1}

PART -II

2. Discuss in detail about optical and kinetic properties of colloids. (10M)
3. a) Explain formulation of deflocculated suspensions. (5M)
b) Write in brief about stability of emulsion. (5M)
4. a) Discuss the factors which influence the chemical degradation of pharmaceutical product. (10M)

PART -III

5. Discuss different types of colloids along with their general properties. (5M)
6. Write about theories of emulsification. (5M)
7. Write about porosity and packing arrangements of powders. (5M)
8. Define and write about preservation of emulsions. (5M)
9. Explain cup and bob viscometer with neat diagram. (5M)
10. Discuss any one method used to determine particle surface area. (5M)
11. Explain kinematic viscosity. (5M)
12. Discuss in detail about thixotropy. (5M)
13. Mention a note on Photolytic degradation and its prevention. (5M)