CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY
4th Semester of B. Pharm. Examination
University Theory Examination May, 2018
PH225 / PH237 Physical Pharmaceutics

Date: 03/05/2018 , Thursday   Time: 10:00 a.m. to 1:00 p.m.   Maximum Marks: 80

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Assessment Scheme

SECTION - I

Q 1   Attempt all questions. Each question is of one mark.   20

1. Electrodialysis is used for_____ of colloids.
[A] Preparation
[B] Identification
[C] Purification
[D] Stabilization

2. Colloidal dispersion of Sulphur is _____ type of colloids.
[A] Lyophobic
[B] Hydrophili
[C] Lyophilic
[D] Association

3. Zeta potential value for stable dispersion is _____.
[A] ± 20 to ±50
[B] +10 to -10
[C]+20 to -20
[D] +5 to -5

4. Charcoal powder on water surface has _____ contact angle (In degrees)
[A] 0
[B] 90
[C] 180
[D] 270

5. Flocalated suspension has_____
[A] Strong inter particulate attaction
[B] Weak interparticulate attraction
[C] Strong interparticulate repulsion
[D] Weak inter particulate trepulsion

6. Structured vehicle is used in suspension to ____.
[A] Decrease interfacial tension
[B] To prevent caking of sediment
[C] To prevent sedimentation of particles
[D] To reduce size

7. HLB value for elusifying agent to prepare O/W emulsion is _____
[A] 1-5
[B] 2-4
[C] 9-16
[D] 1-8

8. _____ emulsifying agent shows solid particle adsorption.
[A] Accacia
[B] Tragacanth
[C] Bentonite
[D] Methyl cellulose

9. On commercial scale, emulsion is prepared by _____.
[A] Centrifugation
[B] ddialysis
[C] Freezing
[D] Homoginization

10. O/W type of emulsion will give_____ creaming, W/O type of emulsion will give _____ creaming
[A] Upward, Downward
[B] Downward, Upward
[C] Downward, Middle
[D] Upward, Middle

11. EDTA is _____
[A] Divalent
[B] Pentavalent
[C] Tetravalent
[D] Hexavalent

12. Cisplatin has _____paltinum.
[A] Divalent
[B] Trivalent
[C] tetravelent
[D] Pentavalent

13. Nagetive thixotropy is as similar as _____
[A] Platic flow
[B] Newtonian flow
[C] Non Newtonian flow
[D] Rheopexy

14. Brooke field viscometer is an example of _____ type.
[A] Cone and plate
[B] Extrusion
[C] Rotating sphere
[D] Rotating spindle

15. Andersen apparatus consist of _____
[A] Balance
[B] Electrodes
[C] Pipette
[D] Hydrometer

16. If true density of talc is 3.00 g/ cm^3, then bulk density of talc is
_____ g/ cm^3.
[A] Greater than 3.00 g/ cm^3
[B] Equal to 3.00 g/ cm^3
[C] less than 3.00 g/ cm^3
[D] No correlation

17. Granule density of Aspirin is 1.33 g/ cm^3, true ensity of the same is 1.37
g/ cm^3. Claculate the interparticle porosity.
[A] 5.6 g/ cm^3
[B] 10.2 g/ cm^3
[C] 2.9 g/ cm^3
[D]4.5 g/ cm^3

18. Human blood has _____ pH.
[A] 4.5
[B] 2.5
[C] 7.4
[D] 8.5

19. Colloids with smaller particle size shows _____ color.
[A] Red
[B] Yellow
[C] Blue
[D] Black

20. For non porous powder, granule density and true density will be
_____
[A] Different
[B] Same
[C] True density is greater
[D] Granule density is greater

SECTION – II

Q 2 Attempt any **TWO** of the following

A Enlist the methods to determine particle size of powder and explain any one in detail. **05**

B Discuss the two component liquid system showing upper consulte temperature. **05**

C Describe the methods of preparation for Lyophobic colloids. **05**

Q 3 Attempt any **TWO** of the following

A Define true density and explain the methods to determine the true density in detail. **05**

B Discuss about the physical stability of suspension. **05**

C Describe the mechanism of action for emulsifying agents. **05**

SECTION – III

Q 4 Attempt any **FOUR** of the following

A Enlist the methods for determination of surface and interfacial tension. Explain capillary rise method. **05**

B Write a note on Hydrophilic Lipophilic Balance. **05**

C Define rheology. Give the application of Rheology in Pharmacy. **05**

D Enumerate methods to determine viscosity. Explain Oswald method. **05**

E Write a note on protective colloids. **05**

F Classify types of complex. Explain inclusion complex in detail. **05**

Q 5 Attempt any **FOUR** of the following

A Define surface tension. Explain Du-Nouy Ring method. **05**

B

1. Calculate Specific surface (Sw & Sv) for griseofulvin having dvs 3.0 micron and true density 1.455 g/cm^3 . **03**

2. What are the factors affecting solubility of gases in liquids? **02**

C Explain Non Newtonian flow with rheogram, and with suitable example. **05**

D Write application of complexes in dosage forms. **05**

E Write note on metal complexes. **05**

F Describe in breif about preparations and stability of isotonic solutions. **05**

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