Bachelor of Pharmacy (B.Pharm) Fourth Semester

BP401 - Physical Pharmacy-II

P. Pages : 1 **GUG/W/18/1164**

Time : Three Hours * 0 8 7 7 * Max. Marks : 80

Notes : 1. All questions carry equal marks.
2. Question No.**1** is compulsory.
3. Diagrams and Chemical equation should be given wherever necessary.
4. Solve **any four** from remaining.

1. Solve **any four** from following. **16**

a) Distinguish between w/o and o/w type of emulsion?

b) Explain why interfacial tension is less than surface tension.

c) Explain in short electrical properties of colloids.

d) Write about concept of half life in a first order.

e) What are ideal and real solution.

2. Define surface and interfacial tensions. Discuss various techniques of measurement of surface and interfacial tension. **16**

3. State various factors which influence a rate of reaction and elaborate accelerated stability techniques. **16**

4. a) Explain theories of emulsification. **8**

b) What are colloids? Explain in short protective collide. **8**

5. a) Derive Scatchard – Hildebrand equation. **8**

b) Explain in short various types of adsorption isotherms. **8**

6. a) What do you mean by cracking of emulsion? State various reasons for cracking of emulsion. **8**

b) Describe in brief about wetting and detergency phenomenon. **8**

7. Write a short notes on **any four.** **16**

a) Spreading coefficient.

b) DLVO theory.

c) Stability of emulsion.

d) Differentiate between polar and non polar solvents.

e) Phase rule and phase equilibria.

f) Emulsifying agent.

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