



**HS-014-003201**

Seat No. \_\_\_\_\_

**Masters in Pharmacy Management (MPM)  
(Sem. II) (CBCS) Examination**

**June / July - 2017**

**Physical Pharmacy**

**Faculty Code : 014**

**Subject Code : 003201**

Time : 3 Hours]

[Total Marks : 80

- Instructions :**
1. Answer and tie both the sections separately.
  2. Figure to the right indicates marks.
  3. Answer any three (3) questions from each section.
  4. Que. One (1) and Que. Five (5) are compulsory.
  5. Draw neat and clean diagrams as required.

**SECTION - I**

- 1 Answer any seven out of given ten questions : 7×2=14**
- a) Explain Raoult's Law.
  - b) Give difference between Flocculated and Deflocculated Suspensions.
  - c) Enlist different identification test for types of emulsion.
  - d) Difference between physical adsorption and chemical adsorption.
  - e) Define : Thixotropy.
  - f) Explain Krafft Point.
  - g) Define chelates and give examples of it.
  - h) Define Surface tension and Interfacial tension.
  - i) What do you mean by ideal solution and real solution?
  - j) What is polymorphism ? Enlist its importance with example.
- 2 Answer the following :**
- a) Describe methods for measurement of particle size. **7**
  - b) Define adsorption isotherm. Draw various types of adsorption isotherm and explain in detail. **6**

- 3 Answer the following :
- a) Enumerates the method for analysis of complexation and explain in detail about solubility method. 7
  - b) Describe in detail about theory of emulsification. 6
- 4 Answer the following :
- a) Explain Solubility of Liquid in Liquid. 7
  - b) Write a note on physical stability of emulsion. 6

## SECTION - II

- 5 Answer any **two** out of given **three** questions : 2×7=14
- a) Describe various methods of achieving liquefaction of gases.
  - b) Classify the complexes and explain in detail any one.
  - c) Explain Liquid Crystalline State.
- 6 Answer the following :
- a) Describe Newtonian and non Newtonian system. 7
  - b) How will you determine Rheological Properties? 6
- 7 Answer the following :
- a) Write a brief account on Surface active agents. 7
  - b) Give general principles of Solubility. 6
- 8 Answer the following :
- a) Discuss the optical properties of colloids. 7
  - b) Discuss two component systems containing phases giving proper examples. 6
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