

**S.Y.B.PHARM. SEMESTER-IV (2011 COURSE) : SUMMER - 2018**  
**SUBJECT : DOSAGE FORM DESIGN – I**

Day : **Wednesday**  
Date : **02/05/2018**

**S-2018-3960**

Time : **02.00 PM TO 05.00 PM**  
Max. Marks : 80

**N.B.:**

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

**SECTION – I**

- Q.1** Answer **ANY FIVE** of the following: [10]
- a) Define solubility. Explain any one method of solubility improvement.
  - b) Explain the factors which affects the solubility and dissolution rate.
  - c) Give comment on flocculating agents.
  - d) Write in short about QA and QC.
  - e) What is importance of partition coefficient in liquid formulation?
  - f) Explain the role of colouring agents and dyes in preparation.
- Q.2** a) Define preformulation. Explain the physico-chemical properties of preformulation. [08]  
b) Comment on common ion effect and polymorphism. [07]
- Q.3** a) Define solution. Explain in detail methods of preparation of solutions. [08]  
b) Enlist the types of emulsion. Explain test for identification of emulsions. [07]
- Q.4** Write short note on **ANY THREE** of the following: [15]
- a) Stability of suspension
  - b) Phase inversion
  - c) HLB scale
  - d) CMC

**SECTION – II**

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) What are different protein structure?
  - b) Differentiate between multiple and micro-emulsion.
  - c) Explain dry suspension formulation. Give one example.
  - d) Write different polymorphic forms of coca butter.
  - e) Explain creaming of an emulsion.
  - f) Enlist various preservative used in emulsion.
- Q.6** a) Define suppository. Explain in detail formulation and evaluation of suppository. [08]  
b) Explain role of emulsifying agent. [07]
- Q.7** a) Explain in detail theories of emulsification. [08]  
b) Discuss factors affecting preservation of emulsion. Give two commercial examples of emulsions. [07]
- Q.8** Write short note on **ANY THREE** of the following: [15]
- a) Hydrocarbon base
  - b) QC of emulsions
  - c) Displacement value
  - d) Factors affecting emulsion stability

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