

**S.Y.B.PHARM. SEMESTER-IV (CBCS - 2015 COURSE) :  
WINTER - 2017**

**SUBJECT : PHYSICAL PHARMACY – II**

Day : **Thursday** Time **02.00 PM TO 05.00 PM**  
Date : **16/11/2017** **W-2017-3797** Max. Marks : 60

**N.B.:**

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of 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) Enlist methods used in preparation of colloids.
  - b) Define: i) Surface tension ii) Gold number.
  - c) Define contact angle and give its significance.
  - d) How emulsions are preserved?
  - e) Give formula for equation governing stability of dispersed systems.
  - f) Give significance of spreading coefficient.
- Q.2** a) Explain in detail adsorption isotherms. [06]  
b) Give an account of theories of emulsification. [04]
- Q.3** a) Give detailed classification of colloids. [06]  
b) Enlist methods to determine surface tension. Explain any one in detail. [04]
- Q.4** Write notes on **ANY TWO** of the following: [10]
- a) Electric double layer
  - b) Controlled flocculation
  - c) Kinetic properties of colloids

**SECTION – II**

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) Define: i) Angle of repose ii) Carr's index.
  - b) Enlist methods to determine particle size.
  - c) Give an account of packing arrangements of particles in a powder.
  - d) Enlist bonds formed in tablet.
  - e) Classify polymorphs.
  - f) Enlist factors affecting flow of powder.
- Q.6** a) Explain in detail methods used to determine surface area of particles. [06]  
b) Classify viscometers. Explain any one in detail. [04]
- Q.7** a) Give an account of compression of powders and methods to evaluate the same. [06]  
b) Explain in detail methods used to determine diffraction angle. [04]
- Q.8** Write short notes on **ANY TWO** of the following: [10]
- a) Particle volume measurement
  - b) Viscoelasticity
  - c) Methods to differentiate crystalline and amorphous forms

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