

C.U.SHAH UNIVERSITY

Summer Examination 2019

Subject Name: Physical Pharmacy II

Subject Code: 4PS04PHP2

Branch: B.Pharm

Semester: 4

Date : 18/04/2019

Time : 02:30 To 05:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

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- Q-1** **Define the following terms** **(14)**
- a) Carr's index
 - b) Hydrolysis
 - c) Oxidation
 - d) Isomerisation
 - e) Polymerisation
 - f) Polydispersity
 - g) Bioadhesivity
 - h) Inclusion complex
 - i) Hausner's ratio
 - j) Half life
 - k) Tacticity
 - l) Microcrystalline Cellulose
 - m) Glass- Rubber transition
 - n) Plug flow

Attempt any four questions from Q-2 to Q-8

- Q-2** **Attempt all questions** **(14)**
- a. Enlist the different type of densities of powder. Write the experimental method for the determination of any one of them **(7)**
 - b. Classify the methods use for determination of surface area. Explain air permeability method in detail with diagram. **(7)**
- Q-3** **Attempt all questions** **(14)**
- a. How will you determine the Rheological Properties? Explain Cup and bob Viscometer in detail. **(7)**
 - b. Write note on Thixotropy **(7)**
- Q-4** **Attempt all questions** **(14)**
- a. Write note on factors affecting powder flow **(7)**
 - b. Define angle of repose and write methods for measurement of angle of repose **(7)**
- Q-5** **Attempt all questions** **(14)**
- a. Write note on first order reaction. **(7)**
 - b. Describe Non-Newtonian systems. **(7)**
- Q-6** **Attempt all questions** **(14)**
- a. Describe the methods used to determine the order of a reaction **(7)**



- b. Enlist various factors effects reaction rates. Discuss the influence of temperature and solvent (7)
- Q-7** **Attempt all questions** (14)
- a. What are the various applications of complexes in pharmacy? (7)
- b. Write mechanism and applications of drug – caffeine complexes (7)
- Q-8** **Attempt all questions** (14)
- a. Define various types of polymers. (7)
- b. Enlist the different properties of polymers. Explain any one in details (7)

