

C. U. SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Advance Drug Delivery-I

Subject Code: 5PS02ADD3 **Branch:** M.Pharm (Pharmaceutics)

Semester: 2

Date:06/05/2017

Time: 02:00 To 05:00

Marks: 70

Instructions:

- (1) Use of Programmable calculator and 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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SECTION – I

- Q-1** Define the following terms (07)
- a. Hydrogel
 - b. Osmotic pressure
 - c. Superporous Hydrogel
 - d. Plasticizer
 - e. Maintenance Dose
 - f. Lag time
 - g. Burst effect
- Q-2** Attempt all questions (14)
- A** Which categories of drug are suitable for sustained release Drug Delivery Systems and Why? (7)
- B** Discuss various approaches of GRDDS. (7)
- OR**
- Q-2** Attempt all questions
- A** Write a note on Advancement in capsule drug delivery. (7)
- B** Explain Pharmaceutical uses of non biodegradable polymers in controlled release formulation. (7)
- Q-3** Attempt all questions (14)
- A** Explain the basic components of osmotic drug delivery system. (7)
- B** Write a note on EOP pump. (7)
- OR**
- Q-3** **A** Explain the theories of bioadhesion for mucocohesive drug delivery system. (7)
- B** Write a note on formulations for buccal bioadhesive drug delivery. (7)



SECTION – II

- Q-4** **Define the following terms:** **(07)**
- a. QTPP
 - b. CQA
 - c. RLD
 - d. Level
 - e. Reduced Model
 - f. Raft Forming Systems
 - g. Wicking Agents
- Q-5** **Attempt all questions** **(14)**
- A** Explain the evaluation parameters of TDDS. **(7)**
- B** Explain the subcutaneous Implants. **(7)**
- OR**
- Q-5** **A** Write a note on Vaginal and uterine route for controlled-release drug delivery. **(7)**
- B** Explain the various devices for providing sustained release to the eye. **(7)**
- Q-6** **Attempt all questions** **(14)**
- A** Write a note on child resistant and temper proof packages. **(7)**
- B** Explain Simplex Lattice for optimization with example. **(7)**
- OR**
- Q-6** **Attempt all Questions**
- A** Discuss the Benefits of Implementing Quality by Design for pharmaceutical Industry. **(7)**
- B** Write a note on Design Space Determination. **(7)**

