

**C.U.SHAH UNIVERSITY**

Wadhwan City

Subject Code : **5PS02ADD1**

Summer Examination-2014

Date: 27/06/2014

Subject Name:: **Advanced Drug Delivery-I**Branch/Semester:- **M.Pharm/II**

Time:02:00 To 5:00

Examination: **Regular****Instructions:-**

- (1) Attempt all Questions of both sections in same answer book / Supplementary
- (2) Use of Programmable calculator & any other electronic instrument is prohibited.
- (3) Instructions written on main answer Book are strictly to be obeyed.
- (4) Draw neat diagrams & figures (If necessary) at right places
- (5) Assume suitable & Perfect data if needed

**SECTION-I**

Q.1

1. Explain the term "Tamper proof packaging". (2)
2. Explain the term "IUD". (2)
3. Explain the term "Wicking agent". (2)
4. Explain the term "Minidisc Ocular Therapeutic System (MOTS)". (1)

Q.2

1. Which categories of drug are suitable for GRDDS and Why? (5)
2. Discuss various approaches of floating drug delivery system. (5)
3. Enumerate various approaches for colon targeting. Explain microbialflora activated system for colon targeting in brief. (4)

**OR**

1. Discuss regulating aspects of packaging materials. (5)
2. Discuss evaluation parameters of sublingual drug delivery system. (5)
3. Discuss recent innovations in parenteral packaging. (4)

Q.3

1. Enlist various properties of polymer. Discuss the molecular weight and Glass transition temperature of polymer. (7)
2. Write pharmaceutical applications of polymers and discuss in brief polymer characterization. (7)

**OR**

1. Classify various factors affecting bioadhesion/mucoadhesion under separate/distinct heads and discuss in detail two factors from each head. (7)
2. Which are potential sites and dosage forms for bioadhesion? Draw a general schematic diagram for BDDS and classify them. Write a note on ex-vivo and in-vivo methods to study this system. (7)

**SECTION-II**

Q.4

1. Explain the term "factors". (2)
2. Explain the term "Levels". (2)
3. Explain the term "permeation enhancer" (2)
4. Explain the term "Plasticizer" (1)



Q.5

1. Discuss the subcutaneous Implants (5)
2. Explain the evaluation parameter of TDDS. (5)
3. Write short note on Higuchi-Theeuwes Pump. (4)

**OR**

1. Discuss methods of Evaluation of implants. (5)
2. Explain the approaches for pulsatile drug delivery system. (5)
3. Write a note on erodible ocusert. (4)

Q.6

1. Explain Yate's method of calculating main effects and interaction in a  $2^3$  factorial experiments. (7)
2. Write advantages and applications of central composite design. (7)

**OR**

1. Describe formulation of ocular controlled drug delivery system. (7)
2. Discuss the parameter to be considered in the design of controlled drug delivery system. (7)

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