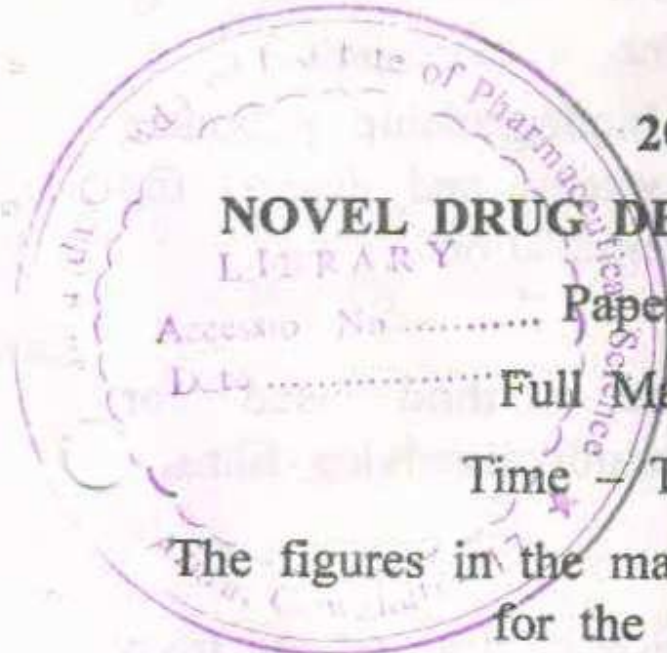


S/E

11-06-13 (Reg)

Total No. of printed pages = 3

48(M.Ph) 2:2 NDDS



2013

NOVEL DRUG DELIVERY SYSTEMS

LIBRARY

Paper : 2:2

Full Marks - 80

Time - Three hours

The figures in the margin indicate full marks for the questions.

Answer any six questions taking three from each Section.

Question Nos. 1 and 5 are compulsory.

SECTION - A

1. (a) Briefly explain the concept of PEGylation. Give factors affecting performance of PEGylated peptide. Discuss about manufacturing challenges. 2+2+3=7
- (b) Discuss about *in vitro* and *in vivo* problems of P & P drug delivery. 7
2. (a) Define sonophoresis. Differentiate between sonophoresis and intophoresis. Discuss about drugs used in sonophoretic delivery. 1+2+4=7

[Turn over

- (b) Write about application of hydrogel in NDDS. 6
3. (a) Discuss the role of biodegradable polymers in drug delivery systems and discuss the mechanism of biodegradation. 7
- (b) Discuss about the method used for manufacturing of mouth dissolving films. 6
4. (a) Discuss the mechanism of drug release from osmotic pump. 6
- (b) Discuss the pH dependent approach of colon targeting. 7

SECTION - B

5. Write notes on : 7+7=14
- (a) Non-animal capsule shells
- (b) Self emulsifying drug delivery system.
6. Explain the transport of drug across mucosal membrane and give various types of mechanism of action of penetration enhancers. 6+7=13

7. Describe the methods of active and passive targeting using particulate carriers. Discuss use of liposomes in drug targeting. $6+7=13$
8. Write notes on evaluation of transdermal drug delivery system. 13