

**Rajiv Gandhi University of Health Sciences**  
**First Year M.Pharm Degree Examination – May 2013**

[Time: 3 Hours]

[Max. Marks: 100]

**ADVANCES IN DRUG DELIVERY SYSTEMS****(RS 2 & RS 3)****Q.P. CODE: 9284**

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. Discuss about formulation and evaluation of long injectable preparations. How is prolongation of GI retention of oral drug delivery systems achieved?
2. Classify pharmaceutical polymers. Write notes of choice of polymers used for controlled and sustained release drug delivery system. Add a note on hydro-gels.
3. a) How is drug targeting achieved?  
b) Write in detail about liposomes.

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. Buccal -DDS
5. Implants.
6. Permeation of drug through skin.
7. Ocular drug delivery systems.
8. Basic components of a Trans Dermal Drug Delivery Systems.
9. Dissolution test for evaluating oral sustained release drug delivery system.

**SHORT NOTES****2 X 5 = 10 Marks**

10. IUDs
11. Ion exchange controlled drug delivery systems.

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