01/06/16

Total No. of printed pages = 4

PY 134202

Roll No. of candidate | | | | | | | | | | |

2016

M. Pharm 2nd Semester End-Term Examination

NOVEL DRUG DELIVERY SYSTEMS

Full Marks–100 Pass Marks–35 Time–Three hours

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

SECTION – A

Answer any *ten* questions : 3×10=30

1. Distinguish between controlled and sustained release formulations. Write on kinetic models used for modified release formulations.

2. Define biodegradable polymers and give examples.

3. What are gastro retentive drug delivery systems (GRDDS) ? Write on drug properties to be designed as GRDDS.

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4. Write on approaches for formulation design of injectable controlled drug delivery.

5. Describe the concept of drug targeting.

6. Define liposomes. What are stealth liposomes ?

7. Write a note on occuserts.

8. What are the factors affecting skin permeation ? Give examples of permeation enhancers.

9. Discuss mucosal transport of drugs.

10. Write on polymeric micelles in drug delivery.

11. Write a note on applications of multiple emulsions in pharmacy.

12. Define gels. Write briefly on the ingredients used in a gel formulation.

13. What is enteric coating and its mechanism of action ? Give examples of enteric polymers.

SECTION – B

Answer any *eight* questions : 5×8=40

1. Discuss mucosal transport of drugs.

2. Write a note on monoclonal antibodies.

3. Describe IVIVC and its significance.

4. Discuss ocular drug delivery mechanism.

5. What are buccal drug delivery systems ? Give examples of buco adhesive polymers.

6. What are nanoparticles ? Describe their methods of preparation.

7. Explain drug targeting to brain.

8. Discuss the design and evaluation of peroral controlled release drug delivery systems.

9. Write a note on IUDs.

10. Describe copper-bearing IUDs and hormone releasing IUDs.

SECTION – C

Answer any *three* questions : 10×3=30

1. Define transdermal drug delivery systems (TDDS). Briefly write on basic components and development of TDDS. Write on their evaluation tests.

2. Define implants. Write different approaches for development of implantable drug delivery systems. Describe Alzet osmotic pump.

3. Discuss the biochemical considerations, development and stability aspects of protein / peptide drug delivery systems.

4. Describe the methods of preparation, characterization and stability aspects of multiple emulsions.

5. Discuss the mechanism of drug release from hydrogel systems.