

16453(D)

M. Pharmacy 1st Semester Examination

Polymers in Pharmaceuticals

MP-012

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : This question paper consists of three Sections: A, B & C. Attempt any one question from Section A, any three questions from Section B and any six questions from Section C.

SECTION - A

Answer any one question.

1. Describe the general method of preparation of polymers.
2. Discuss in detail the regulatory aspects of FDA on pharmaceutical excipients. (1×15=15)

SECTION - B

Answer any three of the followings:

3. Discuss the basic properties of starch and gelatin.
4. Describe the quality control of pharmaceutical polymers.
5. Give a detailed account on "Molecular weight distribution of polymers".
6. Describe in detail the "Acrylates" with respect to their pH dependent solubility. (3×7=21)

SECTION - C

Answer any six questions.

Describe briefly of the followings:

7. Define glass transition temperature of the polymer and its significance.
8. Explain biodegradability testing of polymers.
9. Classify polymers based upon the method of polymerization.
10. What is crystallinity of polymers? How does it affect the polymer properties?
11. Describe the process and mechanism of biodegradation of polymers.
12. Explain toxicity aspects of polymers.
13. Define hydrophilic and hydrophobic polymers giving examples.
14. Explain the diffusional and controlled release of drug from monolithic devices. (6×4=24)