[Total No. of Questions - 7] [Total No. of Printed Pages - 2]
(2124)

1759

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 : (i) Do any seven questions from Section-A.

(ii) Do any three questions from Section-B.

(iii) Do any one question from Section-C.

SECTION - A

1. (a) What are the advantages & disadvantages of solution polymerization technique?

   (b) What is the significance of Glass Transition temperature & plasticization in polymerization?

   (c) Give composition, molecular structure & pharmaceutical applications of Chitosan.

   (d) What are FDA guidelines for potent new Excipients for short term use.

   (e) What do you mean by Supramolecular Biovectors?

   (f) What are poloxamers? Write about pharmaceutical applications of poloxamer 188.

   (g) Define hydrogel. Write about structural network & mechanical strength of hydrogels.

[P.T.O.]

(h) Define thickening & gelling agents. Give examples.

(i) Write about various advantages of Biodegradable polymers. (7×3=21)

SECTION - B

2. Write in detail about emulsion polymerization. (7)

3. How will you determine molecular weight of polymer from viscosity of polymeric solution? (7)

4. Write short note on natural polymers used in Novel Drug delivery with special emphasis on gelatin. (7)

5. (a) Write about FDA requirements for excipients used for injectables & Nasal Route. (4)

   (b) Write about polydioxanone & polycaprolatone for drug targetting. (3)

SECTION - C

6. (a) Write in detail about various polymers used in Tissue Engineering & implants. (9)

   (b) Write in detail about various methods of cross linking with suitable examples. (9)

7. (a) Write in detail about Acrylic latex system & their application. (12)

   (b) Short note on Toxicology studies to be performed for New Excipients according to FDA guidelines. (6)