

[Total No. of Questions - 15] [Total No. of Printed Pages - 2]
(2123)

1583

M. Pharmacy 1st Semester Examination

Polymers in Pharmaceuticals

MP-012

Time : 3 Hours

Max. Marks : 90

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

SECTION - A (Long Answer)

Answer any one question:

1. What are pharmaceutical excipients? What are their characteristics they must comply? What regulatory requirements are essential for their qualification as pharmaceutical usage? Discuss the role of acrylate polymer in pharmaceutical applications.
2. "Solubility and thermal behaviour of polymers are critical in designing of new drug delivery systems" comment with illustrative examples. **(1×25=25)**

SECTION - B (Short Answers)

Answer any three questions:

3. Discuss the properties of poloxamers?
4. How biodegradability of a polymer is explained? Give example.
5. What are Acrylic latex system? How are they prepared for specific use?
6. Enumerate a few natural polymers obtained from plant sources. Discuss the properties of any one such polymer. **(3×10=30)**

1583/100

[P.T.O.]

SECTION - C (Short notes)

Answer any seven questions:

7. Compare and contrast the properties of cellulose and gelatin.
8. What are biodegradable polymers? Justify the advantages of biodegradable polymers over conventional polymers.
9. Why molecular weight(s) of polymer is critically reviewed before its usages? Illustrate your answer with appropriate examples.
10. How starch is obtained? Discuss pharmaceutical properties of starch.
11. What are polymeric solutions? How are they incorporated in parenterals.
12. Discuss the quality control parameters of polymers.
13. What do you mean by terms 'crystal' & 'amorphous'? Discuss the role of crystalline polymer in dosages from design.
14. Write a brief note on synthesis of polymers.
15. Discuss the flow properties of polymers with reference to conventional dosage form design. **(7×5=35)**