

[Total No. of Questions - 15] [Total No. of Printed Pages - 2]
(2125)

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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.

SECTION - A (Long Answer)

Answer any one question.

1. What do you understand by term polymerisation? Discuss the polymerisation techniques in detail. Discuss the properties of gelatin as excipient for pharmaceutical dosage form.
2. Describe the methods of derivatisation of polymers for improvisation of their properties for specific pharmaceutical usages. (1×18=18)

SECTION - B (Short Answer)

Answer any three questions.

3. What are essential regulatory requirements of pharmaceutical excipients enlisted by FDA?
4. What do you understand by term biocompatible and biodegradable polymer? Illustrate your answer with suitable examples.
5. Write a note on the relationship of molecular weight of polymer for its utilization as pharmaceutical excipient.
6. Discuss acrylic latex system and enlist their specific pharmaceutical applications. (3×7=21)

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SECTION - C (Short notes)

Answer any seven questions.

7. What do you understand by cross linked polymers? Give appropriate examples.
8. Define hydrophobicity and hydrophilicity of polymers with suitable examples.
9. What are porous and non porous polymers? Give examples of each class. Explain the mechanism of drug release from non porous polymers.
10. What are common toxicological manifestations of polymers? Discuss any one toxic manifestation with example.
11. Discuss solubilization of polymer in detail. What are disadvantages of incorporation of solubilized polymer to formulation designs?
12. Enumerate the mechanism involved in biodegradation of polymers with suitable example.
13. Write in brief the properties of starch as pharmaceutical excipient.
14. Discuss the role of modified polymers obtained from natural sources for development of NDDS.
15. What do you understand by the term 'swelling' and 'wettability'? How do they affect the formulation designs? (7×3=21)