

MPH-102T

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--

ODD SEMESTER EXAMINATION, 2022-23

COURSE NAME :- M.PHARM

SEMESTER- I

SUBJECT :- DRUG DELIVERY SYSTEMS

TIME: 3 HOURS

MAX MARKS:75

NOTE: Attempt all parts.

PART A

ATTEMPT ALL QUESTIONS

10X2=20

1. Which of the following is used as a mucoadhesive polymer:
(i) Span 80 (ii) Bentonite (iii) Polysorbate (iv) Carbopol
2. Particle size of microcapsules is:
(i) 10-2000 μ (ii) 500-10000 μ (iii) 10000-12000 μ (iv) 15000-30000 μ
3. Which of the following is used as an enteric polymer
(i) Stearic acid (ii) PVA (iii) Ethyl cellulose (iv) Cellulose acetate pthalate
4. The major component of mucous membrane is _____
5. Limitation of implantable drug delivery system is
(i) Limited to potent drugs
(ii) Possibility of adverse reaction
(iii) Biocompatibility issue
(iv) All of the above
1. Ideal controlled delivery formulation should follow:
(i) Zero order release (ii) First order release (iii) Mixed order (iv) All of the above
6. The purpose of microencapsulation is:
(i) To control release
(ii) To increase stability
(iii) To convert liquid to solid
(iv) All of the above
7. Which of the following method of preparation is **not** used for microencapsulation:
(i) Multi-orifice centrifugal extrusion
(ii) Wurster air suspension
(iii) Coacervation phase separation method

- (iv) Circular teflon mould method
8. Which of the following should not be a property of implants:
- (i) Environmental stable
 - (ii) Bio-stable
 - (iii) Non-toxic
 - (iv) Non-removable
9. Write the full form of MDI & DPI.
10. The method of evaluation of microspheres is:
- (i) Particle size
 - (ii) Surface morphology
 - (iii) Drug entrapment
 - (iv) All of the above

PART B

ATTEMPT ANY TWO (2) QUESTIONS

2X10=20

11. Discuss the rationale behind development of a controlled release formulation. Also explain the various approaches to formulate a controlled release system.
12. Define microcapsules with their advantages & disadvantages. Elaborate the different methods of microencapsulation.
13. Discuss about Bio-adhesive drug delivery system. Enlist the different mechanisms of muco-adhesion.

PART C

ATTEMPT ANY SEVEN (7) QUESTIONS

7X5=35

14. Summarize the classification of polymers used in controlled drug delivery systems
15. Enlist the various methods of formulation of liposomes
16. Addition Vs Condensation polymerization
17. Differentiate between microcapsules & microspheres
18. Discuss the applications and advantages of niosomes
19. Write a short note on transdermal drug delivery systems
20. Briefly discuss ocular drug delivery systems.
21. Different methods of evaluation of microspheres.
22. Enumerate various approaches to GRDDS.