

M. PHARMACY (Regular) DEGREE EXAMINATIONS, DECEMBER-2022

Second Semester

PHARMACEUTICS

**MOLECULAR PHARMACEUTICS (NANOTECHNOLOGY AND
TARGETED DDS)**

Time : Three Hours

Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions.

5x5 = 25 M

1. Describe in brief about pulmonary drug delivery systems.
2. Enumerate any six diseases treated by gene therapy.
3. Explain gene expression systems.
4. Write short notes on formulation of niosomes.
5. Explain in detail about aptamers.
6. Explain the differences between phytosomes and liposomes with suitable examples.
7. Discuss about the preparation of monoclonal antibodies.

SECTION - B

Answer any FIVE Questions.

5x10 = 50 M

8. Explain the basic concepts of target oriented drug delivery systems. Discuss liposomes as particulate DDS in drug targeting to a specific site.
9. Explain the following :
 - a) Phytosomes.
 - b) Electrosomes.
 - c) Aquasomes.

10. Illustrate antisense strategies in treating diseases.
11. Discuss the types of containers used in PDDS. Explain the evaluation methods of intra nasal route drug delivery systems.
12. Discuss various viral carrier systems used in gene delivery.
13. Describe in detail about invasive and non invasive brain targeting methods.
14. Explain in detail about liposomal gene delivery systems.



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M. PHARMACY DEGREE EXAMINATIONS, JULY - 2022

Second Semester

PHARMACEUTICS

MOLECULAR PHARMACEUTICS

(NANO TECH AND TARGETED DDS)

Time : Three Hours

Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions.

5x5 = 25 M

1. Write about target drug through magnetic microspheres and by using monoclonal antibodies.
2. What are phytosomes ? Give their composition and application.
3. Write about aquasomes.
4. Discuss the composition of niosomes with examples.
5. Write about gene therapy.
6. Write about antisense molecules.
7. Write a note on liposomal gene delivery systems.

SECTION - B

Answer any FIVE Questions.

5x10 = 50 M

8. a) Explain drug targeting through BBB.
b) Explain various approaches for Lung targeting.
9. a) Define and discuss composition to form liposomes.
b) Explain any three methods to produce liposomes with a note on their special applications.
10. Explain the composition, chemical synthesis and characterization of aquasomes.

P.T.O.

11. Write about the following :
 - a) Nebulizers.
 - b) Aptamers.
12.
 - a) Write about pulmonary drug delivery systems, advantages and disadvantages.
 - b) Write about Electrosomes.
13.
 - a) What are nanoparticles and write their significance.
 - b) How prepare and evaluate nanoparticles.
14. Write about Gene therapy for treatment of Cancer.



Total No. of Questions : 14]

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M. PHARMACY (REGULAR) DEGREE EXAMINATIONS, JANUARY-2022

**Second Semester
PHARMACEUTICS**

**MOLECULAR PHARMACEUTICS (NANOTECHNOLOGY AND
TARGETED DDS)**

Time : Three Hours

Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions.

5x5 = 25 M

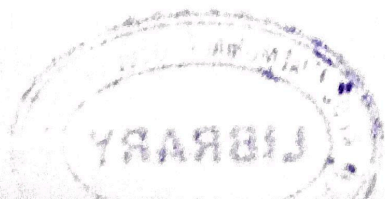
1. Discuss various microencapsulation techniques.
2. Discuss sterility aspects of liposomes.
3. Discuss the factors affecting drug transport across blood brain barrier.
4. Discuss various components of niosomes including their role in niosomes formation.
5. Add a note on significance of gene therapy in potential targeting of inherited disorders.
6. Discuss methods facilitating nasal absorption.
7. Explain various approaches for Drug targeting.

SECTION - B

Answer any FIVE Questions.

5x10 = 50 M

8. Discuss various polymers used in the preparation of nanoparticles.
9. What are microspheres ? Explain in detail the methods of preparation and applications in drug delivery systems.
10. Explain in detail about the general features and therapeutic significance of antisense molecules.
11. Describe about two and three phase aerosol systems. Explain in detail about quality control tests for aerosols.



[P.T.O.]

12. What is EPR ? Explain the applications of aptamers.
13. Describe hybridoma technology of Mab preparation. How will you characterize Monoclonal antibodies ?
14. What are gene drug delivery systems ? Explain in detail about viral and non viral gene transfer methods.



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M.PHARMACY (Supple) DEGREE EXAMINATIONS, FEB/MAR-2020

Second Semester

M.PHARMACY

PHARMACEUTICS

MOLECULAR PHARMACEUTICS

(NANO TECHNOLOGY AND TARGETED DDS)

Time: Three Hours

Maximum marks:75

SECTION-A

Answer any FIVE Questions

5X5=25M

1. Define targeted drug delivery. Explain the challenges in targeted drug delivery.
2. Add a note on tumor targeting.
3. Explain briefly about preparation and evaluation of liposomes.
4. Write the preparation and applications of aquasomes.
5. Add a note on propellents.
6. Define liposomes. Write the mechanism of cationic and anionic liposomes in Gene therapy.
7. Write a note on aptamers.

SECTION-B

Answer any FIVE Questions

5X10=50M

8. Write indetail about drug targeting strategies.
9.
 - a) What are the challenges of brain targeting.
 - b) Explain invasive and noninvasive methods of brain targeting.
10.
 - a) Define nanoparticles. Write briefly about the principle, procedure of the preparation of nanoparticles by various methods.
 - b) What are the evaluation tests of nanoparticles.



P.T.O

11. a) Explain the methods of preparation of Microspheres
b) Add a note on application of phytosomes and electrosomes.
12. a) Write the advantages of intra nasal route delivery systems.
b) Explain the mechanisms and preparation and evaluation of intranasal insitu-gels.
13. Explain in detail about different mechanisms involved in the gene therapy.
14. Write briefly about viral and non viral vectors in gene therapy.

