



**Molecular Pharmaceutics (Nano Tech and Targeted DDS)**

**Q.P. CODE: 5169**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

**LONG ESSAY (Answer any Three)**

**3 X 10 = 30 Marks**

1. Explain the concepts of drug targeting? Classify and describe the various carrier system used for targeted drug delivery.
2. Define 'Nanoparticles'. Classify and describe in detail the different methods used to prepare nanoparticles.
3. Differentiate between nanoparticles and liposomes. Describe all the evaluation parameters for liposomes.
4. What are monoclonal antibodies? Describe the technology used for their production.

**SHORT ESSAY (Answer any Nine)**

**9 X 5 = 45 Marks**

5. Write a note on the phase separation coacervation technique of preparation of microspheres.
6. Discuss the therapeutic applications of microcapsules.
7. Define and describe the structure of niosomes with specific reference to their formulation components
8. What are Aquasomes? How do they differ from liposomes? Describe the principle involved in their method of preparation.
9. Define aerosols? Describe different types of containers used for packing and storage of aerosols along with their merits and demerits.
10. Write a note on the drinking water medication for veterinary usage.
11. Explain in brief the biological factors affecting the drug absorption through the nasal route.
12. Describe the liquid nasal formulation along with their merits and demerits.
13. Write a note on phytosomes.
14. Write a note on tablets and bolus for veterinary usage.

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