

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
FIRST SEMESTER 2023-2024
PHA G617: Advanced Drug Delivery Systems
Mid-term Examination

Maximum marks: 30
Weightage: 30%
Date: 11/10/2023

Closed Book

Duration: 90 min

Note:

- Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
- All parts of a question should be answered consecutively.
- Each answer should start from a fresh page.
- Assumptions made if any, should be stated clearly at the beginning of your answer.

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| No. of Pages | = 1 |
| No. of Questions | = 6 |

Q1. Write short notes on: [5 M]

- a. Risperdal Consta
- b. Factors affecting loading of drug in SLNs

Q2. Explain different methods for the preparation of liposomes. What methods could be used to reduce the size and lamellae in the liposomes. [5 M]

Q3. What criteria and approach could be used for the selection of advanced drug delivery system. [5 M]

Q4. Compare: [5 M]

- a. Nanosuspensions and Nanoparticles
- b. Polymeric micelles and surfactant micelles

Q5. Explain the impact of changing formulation and process parameters on particle size in a single emulsion method for the preparation of microparticles. [5 M]

Q6. “There are several challenges in the development of nanotechnology based products”. What are these challenges and how we can overcome these in the light of advancements that have taken place. [5 M]

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