

M.PHARMA
THEORY EXAMINATION (SEM-II) 2016-17
MOLECULAR PHARMACEUTICS
(NANO TECHNOLOGY AND TARGETED DDS)

Time : 3 Hours

Max. Marks : 70

Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.

SECTION- A

- 1. Attempt all parts of this Section** **7×2=14**
- (a) Define active and passive targeting of drugs.
 - (b) What do you mean by 'SMEDDS'?
 - (c) What are the various types of microspheres?
 - (d) Classify nanoparticles.
 - (e) Differentiate between niosomes and liposomes.
 - (f) Mention the use of single shot vaccines.
 - (g) What are transferosomes?

SECTION – B

- 2. Attempt Three parts** **3×7=21**
- (a) Describe the various types of colon targeted drug delivery systems.
 - (b) Write in brief the various methods of preparation of SEDDS.
 - (c) Mention the significance of using nanostructured lipid carrier for drug targeting.
 - (d) Write down the methods of preparation of transferosomes.
 - (e) Write a brief note on preparation of monoclonal antibodies.

SECTION – C

- 3. Attempt All parts** **5×7=35**
- (a) Elaborate the role of pH in designing targeted drug delivery systems.

OR

Write a brief note on magnetically induced drug targeting techniques.
 - (b) Describe the various methods used for evaluation of microspheres.

OR

Write in brief the major applications of SMEDDS.
 - (c) Write brief note on any one of the following:
 - (i) Nanoemulsion
 - (ii) Carbon nanoparticles.
 - (d) Describe with neat schematic diagrams the applications of any one of the following:
 - (i) Liposomes
 - (ii) Ethosomes.
 - (e) Write down the preformulation flowsheet for preparing protein delivery systems.

OR

Write a brief note on mucosal and transdermal delivery of vaccines.