

Instructions: All questions in section I carry equal marks.

Attempt any 3 questions in section I

Questions in section II is COMPULSORY

Section I

- Que. 1 A Discuss – why drug development is essential. Write a note on the lead compound identification. 7
B Write a note on “Quantitative structure-activity relationship”. 7
- Que. 2 A Write a note on “elementary treatment of enzyme stimulation”. 7
B Explain enzyme inhibition in the metabolism of drugs by giving one appropriate example. 7
- Que. 3 A Give a brief note on dosage forms and types of dosages. 7
B Classify various routes of administration and discuss any two in detail. 7
- Que. 4 A Write a note on the importance of Nano-particle in drug delivery. 7
B Write a note on the role of protein and peptides for the delivery of Nanomedicine. 7
- Que. 5 A Discuss “Phase I, II, and III clinical trials” in detail. 7
B What is Hard drug and Soft drug? Write a note on the importance of physio-chemical parameters like lipophilicity and partition coefficient for API (Drug). 7
- Que. 6 A Write a note on “Aid of pharmaceuticals in the drug development process”. 7
B Write a note on “Phase-II Biotransformation reaction” in detail. 7
- Que. 7 A Write a note on methods of pharmaceutical analysis. 7
B Give a brief overview on “Computer in Chemistry”. 7
- Que. 8 A Write a note on the importance of Nano-particle in the treatment of cancer. 7
B Give a brief note on the importance of Nanotechnology in surgery. 7

(P.T.O)

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Section II

Answer in one or two lines.

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| Que. 1 | What is medicine? | 1 |
| Que. 2 | What is API? | 1 |
| Que. 3 | What is pharmacodynamic? | 1 |
| Que. 4 | What is drug absorption?. | 1 |
| Que. 5 | Write three names of software used in drug discovery. | 1 |
| Que. 6 | Give the difference between drug and medicine. | 1 |
| Que. 7 | Give the difference between Nano & Microparticles? | 1 |
| Que. 8 | What is the unit of the nanoparticle? | 1 |
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