PHARMACOLOGY

PAPER – I

PHARM/D/16/34/I

Time : 3 hours
Max. Marks : 100

Important instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. a) Define bioavailability and its clinical relevance. 5+5
   b) Compare and contrast between bioequivalence and therapeutic equivalence.

2. a) What is High Throughput Screening in drug development? 5+5
   b) Experimental screening methods for potential anti-arrhythmic activity of New Chemical Entity (NCE).

3. a) Compare and contrast between Therapeutic Index and Therapeutic Window. 5+(2+3)
   b) Factors influencing first pass metabolism of drugs and therapeutic implication of this phenomenon.

4. a) Which are the sampling errors in drug screening program? 2+3+5
   b) What is the impact of sampling errors?
   c) Enumerate the ways of reducing these errors.

5. a) Principle of spectrometry technique. 5+5
   b) Its utility in clinical practice with suitable examples.

6. a) Define pA_2 value. 2+4+4
   b) Method of determination of pA_2 value.
   c) Applications of pA_2 determination.

7. a) Targeted drug delivery. 5+5
   b) Its utility in clinical practice.

8. a) Define chronopharmacology. 2+3+5
   b) Aims of chronopharmacology.
   c) Utility of chronopharmacology in clinical practice.

9. a) Define Good Clinical Practice (GCP) in drug development. 2+4+4
   b) What are the principles of GCP?
   c) Enumerate advantages of GCP.

10. a) ABC transporters. 5+5
    b) Clinical relevance of these transporters.

****