[Time: 3 Hours] [Max. Marks: 100]

## **BIOPHARMACEUTICS AND PHARMACOKINETICS**

(Revised Scheme 2)

**Q.P. CODE: 9283** 

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary.

## LONG ESSAY (Answer any TWO)

 $2 \times 20 = 40 \text{ Marks}$ 

- Explain various mechanisms of drug absorption with suitable examples. 1.
- 2. Write about the methods of assessing bioavailability.
- 3. Explain the concept of compartments in pharmacokinetics. Derive equations for elimination rate constant and biological half-life.

## **SHORT ESSAY (Answer any FIVE)**

5 X 10 = 50 Marks

- 4. Write a note on non-linear pharmacokinetics.
- 5. Explain concept of bioequivalence.
- 6. Write about in-vitro in-vivo correlation.
- 7. Factors affecting protein binding
- 8. Adjustment of dose in renal impairment
- 9. Conjugation reactions in biotransformation

**SHORT NOTES** \*\*\*\*\* 2 X 5 = 10 Marks

- 10. Noves-Whitney equation
- 11. Non-renal excretion of drugs

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