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

## **BIOPHARMACEUTICS AND PHARMACOKINETICS** (RS 2 & RS 3)

**Q.P. CODE: 9283** 

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

## LONG ESSAY (Answer any TWO)

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

- 1. Classify and explain dosage form related factors affecting drug absorption.
- 2. Write a note on Phase I reactions of biotransformation.
- 3. Deduce equations to obtain pharmacokinetic parameters of a drug administered by oral route, the drug undergoing absorption by first order kinetics and body acting as a single compartment.

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

5 X 10 = 50 Marks

- 4. What are the causes of non-linearity?
- 5. What are in-vitro and in-vivo methods of determining absorption?
- 6. Write a note on measurement of bioavailability.
- 7. Explain factors affecting excretion of drugs.
- 8. Explain the basic concept of Therapeutic Drug Monitoring.
- 9. Explain p<sup>H</sup> partition hypothesis.

**SHORT NOTES** 2 X 5 = 10 Marks MANN FILESTE STREET STR

- 10. Discuss induction of drug metabolizing enzymes.
- How are ionic/ionizable drugs absorbed? 11.

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