[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 X 20 = 40 Marks

- Classify and explain dosage form related factors affecting drug absorption.
- 2. Write a note on Phase I reactions of biotransformation.
- 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?
- Write a note on measurement of bioavailability.
- Explain factors affecting excretion of drugs.
- Explain the basic concept of Therapeutic Drug Monitoring.
- Explain p<sup>H</sup> partition hypothesis.

SHORT NOTES 2 X 5 = 10 Marks

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

