



AC-1582

**M. Sc. (Pharmaceutical Chemistry) (SF) (Sem. IV)
Examination**

April / May – 2015

**Paper - III : Drug Metabolism,
Pharmacokinetics & Pharmacognosy**

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दर्शायेव निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. SC. (PHARMACEUTICAL CHEMISTRY) (SF) (SEM. IV)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Paper - III : Drug Metabolism, Pharmacokinetics & Pharmacognosy"/>	<input type="text" value="Student's Signature"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="5"/> <input type="text" value="8"/> <input type="text" value="2"/> Section No. (1, 2,.....) : <input type="text" value="Nil"/>	

(2) Figures to the **right** indicate full marks of the questions.

1 Explain any **Three** of the following : **18**

- (a) What is computer aided drug design(CADD)? Giving illustration discuss the application of molecular modelling method in drug design process.
- (b) Give an account of computerized tagging with suitable illustrations.
- (c) Explain giving diagram deconvolution method for screening of active member of library.
- (d) What is molecular mechanics ? Giving suitable example discuss the application of molecular mechanics for creation of molecular model.

2 Answer any **three** of the following. **18**

- (a) Discuss the pharmacokinetics of metabolites and derive the first order kinetics.

- (b) Give a brief account on the calculation of t_{max} and c_{max} . Derive equation for c_{max} .
- (c) What is bioavailability? Give the relationship between relative and absolute availability in pharmacokinetic behaviour of drug.
- (d) Define and explain: prodrug and soft drug concept. Discuss the role of prodrug in drug biotransformation.

3 Answer any **three** of the following. **18**

- (a) What do you mean by pharmacognosy? Discuss the therapeutic efficacy of Gokhru and Punarnava, a class of diuretics.
- (b) Give an account on the important constituent present in Ashwagandha and Opium used as drugs on the nervous system.
- (c) Write a note on Tulsi as antitussives.
- (d) Give the occurrence and distribution of antihypertensive drugs. Discuss the therapeutic efficacy of digitalis and arjuna a class of cardiotonics.

4 Answer any **three** of the following. **16**

- (a) What is docking study? Discuss briefly based on docking study; the binding potential of the ligand to target site.
 - (b) What are model systems? Discuss the application of compartment model for drug affinity.
 - (c) Compare the advantages and disadvantages of solid support and solution techniques of combinatorial chemistry.
 - (d) Give an account on the important constituents present in Cinnamon and Ajowan as carminative and GI regulators.
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