AMAZON – II (2012 COURSE) (CBCS): SUMMER – 2016
SUBJECT : ADVANCED PHARMACEUTICS – III

Day : Tuesday
Date : 05-07-2016

Time : 10:00AM TO 1:00 P.M.
Max. Marks : 60

N.B.:

1) Attempt **ANY THREE** questions from each section.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

Q.1 Give an account of the carrier mediated processes for drug transport across biological membrane. Highlight the role of ABC transporters. **[10]**

Q.2 Explain the different barriers to drug distribution. **[10]**

Q.3 Explain the approaches for estimation of association constant ka and number of binding sites N involved in protein-drug binding. **[10]**

Q.4 Write notes on: **[10]**

a) Influence of plasma drug concentration on renal excretion

b) In–vitro and in- vivo models for drug absorption studies

SECTION – II

Q.5 Obtain the expression for C_{max} applying Laplace Transform for a drug administered orally assuming one compartment model and first order kinetics. **[10]**

Q.6. What are primary and secondary pharmacokinetic parameters? Explain the influence of altered hepatic metabolism on clearance and bioavailability. **[10]**

Q.7 Explain the approaches used to improve the bioavailability of BCS Class III drug. **[10]**

Q.8 Write notes on: **[10]**

a) Latin square and cross over designs

b) Sigma Minus Method

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AMAZON-II (CBCS 2012 COURSE): SUMMER-2016
SUBJECT: ADVANCED PHARMACEUTICS-II

Day: Saturday
Date: 02-07-2016

Time: 10:00AM TO 1:00 P.M.
Max Marks: 60

N.B.:

1) Attempt any **THREE** questions from Section –**I** and any **THREE** questions from Section – **II**.
2) Figures to the **RIGHT** indicate full marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION - I

Q.1 Discuss the factors to be considered in design of rectal drug delivery system. **(10)**

Q.2 Discuss design and evaluation of controlled release ocular inserts. **(10)**

Q.3 Explain percutaneous absorption and mechanism of penetration. **(10)**

Q.4 Write short notes on: **(10)**

a) Ion exchange based drug delivery system.

b) Evaluation of microspheres.

SECTION - II

Q.5 Explain the challenges in formulation of protein and peptide drugs. **(10)**

Q.6 Elaborate the various aspects of preparation, characterization and application of liposomes. **(10)**

Q.7 Discuss physiological bases and formulation consideration of pulmonary drug delivery system. **(10)**

Q.8 Write short notes on: **(10)**

a) Brain targeted drug delivery.

b) Characterization and application of lipid nanoparticles.

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