MASTER OF PHARMACY EXAMINATION, 2017
(2nd Semester)

Pharm. Chemistry - II

Time: Three hours Full Marks: 100

Answer any ***five*** questions taking at least ***two*** from Group A

GROUP – A

1. a) Differentiate between reductionist and synergistic approaches for drug development from natural resources with example in each case.

   b) What is a reference standard for phytochemical substances used in analysis of plant drugs? Classify them with two examples in each case with their source therapeutic use and chemical structures. 10+10 = 20

2. a) Describe the chemical structure of the reference substances and the assay procedures for the following herbal drugs:
   i) Gokhru IP
   ii) Shatavari IP
   b) Describe the evidence based validation of herbal drugs; explain with example how traditional claims on use of herbs can be validated by chemical means?
   10+10 = 20

3. Describe the following with example and its importance on drug development from natural resources: 4x5 = 20
   a) Bioassay guided isolation.
   b) Safety evaluation of herbal drugs
   c) Regulation on Phytopharmaceuticals
   d) Integration of herbal with modern medicine

Ref.No.: Ex/PG/PHAR/T/127E/2017

Name of the Examination: M.PHARMACY FIRST YEAR SECOND SEMESTER-2017

Subject: PHARMACEUTICAL CHEMISTRY- II Time: THREE HOURS Full Marks: 100

Answer any five questions taking at least one from each group

GROUP - B

Q.4. a) Define Bio isosterism and show the transition of one therapeutic segment is transformed to another segment by the way of bio isosterism.

b) What are Bio similars? Explain the development of 5-FU as anti-cancer drug through the concept of bio similar drug development. Outline the synthesis of 5-FU. 2+5+2+5+6

Q.5 What are phase-I and phase-II metabolites? Explain these phenomena with different pathways.

5+15

Q.6.a) Define drug latentiation and potentiation. Explain the cleavage pathway of cefpodoxime proxetil.

How Mannich base is used to produce water soluble tetracycline derivative.Name the compound and explain with structural modification.

b) How drug precursors are used to design site-specific delivery system. Explain with specific example. 3+4+4+3+6

Q.7. a) What are Auwers-Skita rules? Draw the structures of cyclohexane with boat and chair conformation. What is fp-bs interaction? What is the characteristics of axial and equatorial bonds?

b)Discuss briefly the conformational aspects of cholestane and coprostane. 2+2+2+2+6+6

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M. Pharm 1st Yr 2nd Sem. Exam.-2017

Subject: Pharm Chem-II **Time : 3 Hours** **Full Marks : 100**

GROUP - C

Answer AT LEAST ONE question from this group. Answers to all parts of a question should be written at the same place of the answer-script and in the same order as they appear in the question paper.

8. Write the detailed procedure to construct a Multiple Linear Regression (MLR) equation. [20

9. Write notes on:
(i) Difference between Free-Wilson and Fujita-Ban models
(ii) Hansch model with reference to "random walk" of drugs [10+10

10. Write notes on: [4 x 5
(i) Charton effective parameter
(ii) Sigma plus
(iii) CoMSIA
(iv) Q^2

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