Printed Pages: 2
Paper Id: 1 5 0 6 0 1

Sub Code: BOP 361
Roll No.

B PHARM
(SEM VI) THEORY EXAMINATION 2017-18
PHARMACEUTICAL CHEMISTRY-VII (MEDICINAL CHEMISTRY-II)

Time: 3 Hours *Total Marks: 100*

Note: 1. Attempt all Sections. Assume missing data suitably, if any.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

a. Define drug design and its objectives.
b. Define antihistamines. Write chemical structure for Diphendydramine.
c. Define arrhythmia and hyperlipidemia.
d. Write chemical structure, IUPAC name and uses of Atenolol.
e. Give chemical structure for Alogliptin and Tazarotene.
f. Name with chemical structures potassium sparing diuretics.
g. Explain benefits of COX-2 selectivity.
h. Write synthesis and uses of Isosorbide dinitrate.
i. Write structural features of Heparin.
j. Name NSAIDs with anthranilic acid nucleus.

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30

a. Write synthesis and therapeutic uses of Glibenclamide, and Nifedipine.
b. Write structure-based classification of NSAIDs with examples and structures. Outline synthesis of Paracetamol.
c. Write a note on proton pump inhibitors.
d. Define angiotensin converting enzyme inhibitors. Write their mechanism of action and synthesis of any one drug.
e. Explain Multiple Regression Analysis. Compare SAR and QSAR.

SECTION C

3. Attempt any *one* part of the following: 10 x 1 = 10

(a) What are the objectives of Analog-based drug design? Explain the methods employed for it.
(b) Write a note on: (i) Basic concept of drug design (ii) Molecular descriptors.

4. Attempt any *one* part of the following: 10 x 1 = 10

(a) What are hypoglycemic drugs? Write detailed classification with examples and structures. Write synthesis of metformin.
(b) What are the various structural features required for biological activity of statins.

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5. Attempt any *one* part of the following: 10 x 1 = 10

(a) Write category and chemical synthesis of Ranitidine, Minoxidil and Warfarin.

(b) Write uses, synthesis and structure-activity relationship for Acetazolamide.

6. Attempt any *one* part of the following: 10 x 1 = 10

(a) Define diuretics. Write classification with examples and structures.

(b) Write uses, synthesis, and mechanism of action and essential structural features for Ibuprofen.

7. Attempt any *one* part of the following: 10 x 1 = 10

(a) Define Coxibs. Write classification and structure-activity relationship studies.

(b) Explain antithyroids drugs with synthesis of Propylthiouracil.

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