

UKA TARSADIA UNIVERSITY

B.Pharm. (6th Semester)

Subject :030020602-Medicinal Chemistry II

Time : 10 am to 1 pm

Duration : 3 Hours

Date : 19/05/2014

Max. Marks : 70.

Instructions:

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks allocated to that question.
5. Draw diagrams/figures whenever necessary.

SECTION - 1

Q-1 (A) Do as directed.

[07]

- I) Define hallucinogens.
- II) What is the difference between sedative and hypnotic?
- III) Draw heterocyclic ring present in phenothiazine antipsychotics.
- IV) Write name and chemical structure of DOPA decarboxylase inhibitor.
- V) What do you mean by anticonvulsant?
- VI) Give mechanism of action of tricyclic antidepressant.
- VII) Write IUPAC name of chlorpromazine.

Q-1 (B) Answer the following in brief. (Any 4)

[08]

- I) Write names and chemical structures of analeptics of cocaine related agents.
- II) Discuss any one chemical class of anxiolytics.
- III) Write name of nucleus present in hydantoin, succinimide, barbiturate and purines.
- IV) Write mechanism of action and uses of barbiturates.
- V) Give examples with chemical structures of SSRIs used as antidepressants.
- VI) Give therapeutic uses, adverse effects and one example with chemical structure of ultra short acting barbiturates.

Q-2 Answer the following.

[10]

- A) Write in detail chemical classification of major tranquillizers with chemical structures.

OR

- A) Discuss structure activity relationship of benzodiazepines. Give any one example of triazolobenzodiazepine with chemical structure.
- B) Classify drugs used in Alzheimer's disease with mechanism of action and therapeutic uses.

OR

- B) Write the mechanism of actions of various antiepileptic agents.

Q-3 Answer the following in detail. (Any 2)

[10]

- A) Explain the SAR of phenothiazines.
- B) Classify general anaesthetic agents with chemical structures.
- C) Write a short note on sedative-hypnotic agents.

SECTION - 2

Q-4 (A) Do as directed.

[07]

- I) Write IUPAC name of Ibuprofen.
- II) What is cardiotonic agents?

- III) Give name of nucleus present in steroid hormones.
- IV) What is the mechanism of action of local anaesthetics?
- V) Give any one example with chemical structure of directly acting vasodilator as an antihypertensive agent.
- VI) Write mechanism of action of thiazide diuretics.
- VII) Define hypoglycemic agents.

Q-4 (B) Answer the following in brief. (Any 4)

[08]

- I) Write name with structures of various forms of thyroid hormone.
- II) Explain in brief chemistry of adrenocorticoids.
- III) Give any two examples with chemical structures of ACE inhibitors.
- IV) Write therapeutic uses of thrombolytic agents and antianginal drugs.
- V) Discuss Class-I drugs of antiarrhythmic agents.
- VI) Write mechanisms of action of various antihyperlipidemic agents.

Q-5 Answer the following.

[10]

- A) Discuss the SAR of 1,4-dihydropyridines.

OR

- A) Explain the SAR of thiazides.
- B) Discuss various sympathetic agents used in hypertension with chemical structures.

OR

- B) Write a short note on oral contraceptives.

Q-6 Answer the following in detail. (Any 2)

[10]

- A) Write mechanism of action and SAR of cardiac glycosides.
- B) Classify oral hypoglycemic agents with chemical structures.
- C) Give examples with chemical structures, mechanism of action and uses of androgens.