

UKA TARSADIA UNIVERSITY

M.Pharm. (Pharmacology) (1st Semester)

Subject :040050103 - Advances in Pharmacology

Duration: 3 Hours

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) Which drug is selective alpha-1 receptor antagonist?
- II) Which type of Beta-receptors is located in adipose tissue?
- III) Which drug is selective alpha-2 agonist?
- IV) In Glaucoma, the intraocular tension exceeds how much mmHg level?
- V) Enumerate two drugs used for open angle glaucoma
- VI) Enumerate therapeutic uses of adrenaline
- VII) Give example of two catecholamine drugs

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

[08]

- I) Differentiate between open and closed angle glaucoma
- II) What is role of carbonic anhydrase in aqueous formation in eyes?
- III) Describe briefly: Histamine triple response
- IV) Write full names of PIP₂ and EDRF
- V) What is effect of Histamine on Heart?
- VI) Draw flow chart depicting main steps of biosynthesis of 5-HT.

Q-2 Answer the following.

[10]

A) Drug therapy of migraine

OR

A) Treatment of organophosphorus poisoning

B) Differentiate between pharmacological effects of adrenaline and nor-adrenaline on various systems

OR

B) Role of antihistaminics as drug therapy of cold

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

[10]

- A) Pharmacological effects of atropine
- B) Pharmacological actions and uses of cyclosporine
- C) Pathophysiological roles of serotonin

Section-2

Q-4 (A) Do as directed.

[07]

- I) Write name of two antibiotics that inhibit cell wall synthesis
- II) Enumerate two main adverse effects of aminoglycosides
- III) Give two examples of second generation fluoroquinolone drugs
- IV) Give two examples of fourth generation cephalosporin drugs
- V) Write mechanism of action of macrolides in brief
- VI) Give example of two polypeptide antibiotics
- VII) What do you mean by the term 'polyene antibiotics'? Give examples.

Q-4 (B) Write mechanism of action of following drugs (Any 4). Answer the following in brief.

[08]

- I) Mefloquine
- II) Paclitaxel
- III) Finasteride
- IV) Arteether
- V) Acyclovir
- VI) Dapsone

Q-5 Answer the following.

[10]

A) Vinca alkaloids as anticancer agents

OR

A) Classify anti-TB drugs. Describe pharmacology of streptomycin

B) Classify sulfonamides. Write their mechanism of action and therapeutic uses.

OR

B) Pharmacology of Zidovudine as anti-retrovirus drug therapy.

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

[10]

- A) Classify alkylating agents. Add a note on pharmacology of Thio-TEPA
- B) Classify anti-malarial drugs. Add brief note on chloroquine
- C) Give examples of various classes of beta-lactam antibiotics. Explain molecular mechanism of action of penicillins.