

UKA TARSADIA UNIVERSITY

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

Subject :040050103 - Advances in Pharmacology

Time : 2.30 pm to 5.30 pm

Duration: 3 Hours

Date : 24/05/2014

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 heterotropic receptor interaction.
- II) Write characteristics of dopamine receptors.
- III) Enlist indirectly acting parasymphomimetics.
- IV) Differentiate MAO enzymes.
- V) Enlist histamine receptors with their nature.
- VI) Enumerate non-catecholamine β_2 selective agonists.
- VII) How to prolong action of local anesthetics?

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

[08]

- I) Explain mechanism of action of cholinesterase reactivators.
- II) Clonidine is sympathomimetic but it is used as antihypertensive agents.
- III) Describe in brief mechanism of action of dantrolene.
- IV) Explain mechanism of action of cyclosporine and sirolimus.
- V) Explain contraindications of β -blockers.
- VI) Differentiate between d-tubocurarine and succinylcholine.

Q-2 Answer the following.

[10]

- A) Describe therapeutic uses of parasympatholytics with justification.

OR

- A) Describe different types of local anesthesia.
B) Describe drug treatment of migraine.

OR

- B) Discuss pharmacological actions of prostanoids.

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

[10]

- A) Describe therapeutic uses of β blockers.
- B) Discuss drug treatment of glaucoma.
- C) Describe pharmacological actions of epinephrine.

Section-2

Q-4 (A) Do as directed.

[07]

- I) Enlist urinary antiseptic compounds.
- II) Write name of ring attached to β -lactam ring to penicillin and cephalosporin.
- III) How dose of gentamycin adjusted in patient with renal insufficiency?
- IV) Differentiate time dependent killing and concentration dependent killing of bacteria with example.

- V) What is HAART?
- VI) Enlist drug used in Leishmaniasis.
- VII) Enlist toxicities of antineoplastic agents.

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

[08]

- I) Justify synergistic effect of sulfamethoxazole and trimethoprim.
- II) Explain mechanism of action of fluoroquinolones.
- III) Explain mechanism of aminoglycoside induced nephrotoxicity.
- IV) Explain mechanism of action of flucytosine.
- V) Explain mechanism of action of acyclovir.
- VI) Give comment: aminoglycosides are not effective against anaerobic bacteria.

Q-5 Answer the following.

[10]

- A) Discuss bacterial resistance to antibiotics.

OR

- A) Classify antimalarial drugs. Describe pharmacology of chloroquine.
- B) Describe pharmacology of L-asparaginase.

OR

- B) Classify antiamoebic drugs. Describe pharmacology of metronidazole.

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

[10]

- A) Classify anthelmintics. Describe their mechanism of actions.
- B) Explain replicative cycle of HIV along with mechanism of antiretroviral drugs.
- C) What is DOT? Describe drug regimen recommended by WHO for treatment of T.B.