

UKA TARSADIA UNIVERSITY

B.Pharm. (5th Semester)

Subject :030020503-Pharmacology I

Time : 10:00 am to 1:00 pm

Date : 02/12/2013

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) Dale's vasomotor reversal principle
- II) Spare receptor
- III) Half life
- IV) Bioequivalence
- V) Drug tolerance
- VI) Apparent volume of distribution
- VII) Clearance

Q-1 (B) Answer the following in brief. (Any 4) [08]

- I) Differentiate between Autonomic and Somatic Nervous System
- II) Justify the statement "Atropine is used as a pre-anaesthetic medication".
- III) Give reason "Local anaesthetics often fail to afford adequate pain control in inflamed Tissue".
- IV) Differentiate between Phase I and Phase II metabolism
- V) Justify the statement "Pralidoxime is used in the treatment of organophosphate compound poisoning".
- VI) Explain with example, "Protein binding of drugs affects their pharmacokinetics".

Q-2 Answer the following. [10]

- A) Describe the mechanism of action, pharmacological actions and toxicity of non-depolarizing skeletal muscle relaxants.

OR

- A) Describe the various types of Drug Antagonism.
B) Explain the signal transduction mechanism of tyrosine kinase receptors.

OR

- B) Explain various factors modifying drug action.

Q-3 Answer the following in detail. (Any 2) [10]

- A) Define Drug interactions. Explain the Pharmacodynamic drug interactions.
- B) Classify local anaesthetics. Write their characteristics and mechanism of actions.
- C) Classify parasympatholytics and write a short note on atropine.

SECTION - 2

Q-4 (A) Do as directed. [07]

- I) Give mechanism of action of Nicorandil.
- II) Enlists the major side effects of statins.
- III) Define Autocoids.
- IV) Give one example of long acting fibrinolytic drug.
- V) What are the drug of choice for digitalis induced arrhythmia.
- VI) Give mechanism of action of Spironolactone
- VII) Give one example of heart selective Ca⁺⁺ channel blocker.

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

[08]

- I) Explain briefly generation of re-entrant rhythm in myocardium.
- II) Justify the use of verapamil in arrhythmia.
- III) Write a note on PAF.
- IV) Write a note on HMG Co-A reductase inhibitors.
- V) Discuss the interaction of digoxin with quinidine.
- VI) Write a note on plasma Expander.

Q-5 Answer the following.

[10]

- A) Classify different types of 5-HT receptors with examples of agonists and antagonists.

OR

- A) Discuss the role of calcium channel blockers in angina pectoris.
- B) Differentiate heparin and warfarin. Write a note on fibrinolytic agents.

OR

- B) Write note on high-ceiling diuretics.

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

[10]

- A) Classify antihypertensive drug with example. Discuss in detail about ACE inhibitors.
- B) Describe pharmacological actions of Digoxin on heart in presence of congestive cardiac failure.
- C) What are anticoagulants? Write source, pharmacokinetics, mode of action and uses of vitamin-K.