

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Pharmacy (Second Year) Examination May/June-2011
Subject Code:420003

Subject Name: Pharmacology and Toxicology

Date: 28/05/2011

Time: 02.30 pm – 05.30 pm

Total Marks: 80

Instructions:

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks**

Q.1(a) Define the following terms :- **(6)**

- (i) Pharmacology (ii) Pharmacokinetics (iii) Synergism
(iv) Arrhythmia (v) Chemotherapy (vi) Prodrug

(b) Enumerate various routes of drug administration and give advantages and disadvantages of parenteral route of drug administration **(5)**

(c) Classify Sympathomimetic agents based on their clinical use and give a comparison of cardiovascular effects of Adrenaline, Noradrenaline and Isoprenaline. **(5)**

Q.2 (a) Classify Diuretics and write in brief about Loop Diuretics. **(6)**

(b) Discuss in brief-Organophosphorous compound poisoning and its treatment. **(5)**

(c) Define general anaesthesia and write a note on Preanaesthetic medication. **(5)**

Q.3 (a) Explain the following :- **(6)**

- (i) Triple response of Histamine
(ii) Plasma protein binding of drugs
(iii) Dale's Vasomotor reversal
(iv) Ectopic focus

(b) Explain giving reason, why- **(5)**

- (i) Levodopa is given in combination with Carbidopa in treatment of Parkinsonism.
(ii) Ethanol is used in the treatment of Methanol poisoning.

(c) Write a short note on Expectorants and Antitussives. **(5)**

Q.4 (a) Discuss pharmacological actions, adverse effects and therapeutic uses of Atropine. **(6)**

(b) Classify anticancer agents and write a note on Methotrexate. **(5)**

- (c) Explain the following adverse effects and name the drug producing them- (5)
- (i) Fanconi like syndrome (ii) Gray Baby Syndrome
 - (iii) Crystaluria (iv) Ototoxicity

Q.5 (a) What is Diabetes Mellitus? Explain the mechanism of action, pharmacological actions and adverse effects of Insulin. (6)

(b) Give the mechanism of action of the following drugs - (5)

(i) Nitrates in cyanide poisoning.

(ii) Statins in hyperlipidaemia.

(c) Write a short note on Metronidazole. (5)

Q.6 (a) Discuss the mechanism of action and pharmacological actions of Digitalis. (6)

(b) Justify the use of :- (5)

(i) Benzodiazepines and Barbiturates as hypnotics.

(ii) Diphenylhydantoin as antiepileptic.

(c) Write a short note on antitubercular drugs. (5)

Q.7(a) Explain mechanism of action, pharmacological actions and therapeutic uses of Salicylates. (5)

(b) Explain the meaning of Radical Curative and Suppressive action in reference to antimalarial drugs and write a note on Chloroquine. (5)

(c) Write a short note on antithyroid drugs. (5)
