

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. IST Semester Examination – June- 2011

Subject code: 910203

Subject Name: Advances in Pharmacology

Date: 24/06/2011

Time: 10:30 am – 01:30 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) Discuss about cholinergic receptors, their sites, agonists and antagonists. **06**
 - (b) Give clinical classification of antimalarial drugs. Discuss pharmacological actions, adverse effects and therapeutic applications of Chloroquine. **05**
 - (c) Discuss the role of 5-HT in pharmacology and give therapeutic applications of 5-HT receptor antagonists. **05**
- Q.2**
- (a) Name the antimicrobial agent producing the following adverse reactions and discuss their symptoms and treatment or prevention. **06**
 - (i) Gray baby syndrome
 - (ii) Ototoxicity
 - (iii) Cinchonism
 - (b) Discuss the mechanisms of resistance development to antibiotics. **05**
 - (c) Discuss with justification of receptor mechanism involved, the action of sympathomimetics and parasympathomimetics on **05**
 - (i) Eye
 - (ii) CVS
 - (iii) GIT
- Q.3**
- (a) (i) Explain what is Dale's Vasomotor Reversal. **06**
(ii) Explain how Edrophonium is used for differential diagnosis of cholinergic crisis and myasthenic crisis.
 - (b) Discuss pharmacological actions, adverse effects and therapeutic actions of antihistaminic drugs. **05**
 - (c) Justify the use of following drugs- **05**
 - (i) Sulfasalazine in ulcerative colitis.
 - (ii) Timolol in chronic open angle glaucoma.
 - (iii) Ondansetron in anticancer therapy induced emesis.
 - (iv) Atropine as pre-anaesthetic medication.
 - (v) Histamine in diagnosis of leprosy.
- Q.4**
- (a) Discuss in detail pharmacological actions and therapeutic uses of muscarinic receptor antagonist drugs. **06**
 - (b) Differentiate between tuberculoid and lepromatous leprosy and write briefly about sulphones. **05**
 - (c) Write a short note on Imidazole derivatives used in treatment of amoebiasis. **05**

- Q.5** **(a)** Explain how antimicrobial agents act by **06**
 (i) Inhibiting cell wall synthesis.
 (ii) Inhibiting protein synthesis.
- (b)** Discuss mechanism involved in organophosphorous compound poisoning. Give its symptoms and management. **05**
- (c)** Explain giving reasons, why- **05**
 (i) Amoxycillin is given in combination with clavulanic acid.
 (ii) Propranolol is contraindicated in patients of bronchial asthma and diabetes mellitus under treatment.
 (iii) Tetracycline should not be administered during pregnancy.
 (iv) Patients on MAO inhibitor therapy are advised not to consume cheese or chocolate.
 (v) Ergotamine is used in migraine.
- Q. 6** **(a)** Discuss side effects and therapeutic indications of the following- **06**
 (i) Cephalosporins
 (ii) Penicillin
 (iii) Isoniazid
- (b)** Explain what is DOTS and discuss the role of glucocorticoids in tuberculosis.. **05**
- (c)** Write short notes on- **05**
 (i) Prostaglandins
 (ii) Antifungal antibiotics
- Q.7** **(a)** Explain mechanism of action and therapeutic uses of the following- **06**
 (i) Sulfonamides.
 (ii) Neostigmine.
 (iii) Salbutamol.
- (b)** Write a short note on immunosuppressants **05**
- (c)** Answer the following- **05**
 (i) Differentiate between D-tubocurarine and succinylcholine.
 (ii) What is cotrimoxazole? Give its therapeutic uses.
