

**UKA TARSADIA UNIVERSITY  
MALIBA PHARMACY COLLEGE  
First Semester M. Pharm  
Internal Examination 2012  
Advances in Pharmacology (040050103)**

**Date: 01/12/2012**

**Time: 1.30 TO 4.30 PM**

**Total Marks: 70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Draw diagrams/figures whenever necessary

**Q-1**

**(A) Answer the following**

**[07]**

- i. Write functions of Thromboxane A<sub>2</sub>.
- ii. Define heterotopic receptor interaction
- iii. Explain mechanism of action of sirolimus
- iv. Enumerate non-catecholamine  $\beta_2$  selective agonists
- v. Enlist cholinesterase reactivators
- vi. Name macrophages stimulators
- vii. Timolol in chronic open angle glaucoma - Give the pharmacological basis.

**(B) Answer the following in brief: (Any 4)**

**[08]**

- i. Describe role phenoxybenzamine in treatment of prostate hypertrophy
- ii. Clonidine is sympathomimetic but it is used as antihypertensive agents
- iii. Enlist macrophage stimulator and give it therapeutic use
- iv. Write characteristics of dopamine receptors
- v. Justify - Pirenzepine is preferred over atropine in the treatment of peptic ulcer
- vi. Explain action of adrenaline on aqueous humor dynamics
- vii. Explain contraindications of  $\beta$ -blockers

**Q-2 Answer the following:**

**[10]**

- A) Rationalize the therapeutic uses of parasympatholytics.
- B) Drug treatment of migraine

**OR**

- A) Explain the importance of toll like receptor in the immune mechanism
- B) Describe role of Prostaglandins' in the kidney and CNS function

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

**[10]**

- A) Explain in detail therapeutic uses of various beta blockers
- B) Write note on Calcineurin Inhibitors
- C) Drug treatment of glaucoma

**Q-4 (A) Answer the following:**

[07]

- i. Enlist drug used in Leishmaniasis.
- ii. Classify antineoplastic drugs based on Cell cycle specificity.
- iii. What is HAART?
- iv. Ondansetron is given for cisplatin induced vomiting What is post antibiotic effect (PAE)?
- v. Enlist urinary antiseptic compounds
- vi. Drug interaction: Amphotericin-B and Flucytosine
- vii. Identify the drug comprising following properties
  1. Pharmacological analogue but not structural analogue of Sulfonamide.
  2. Used topically.
  3. Active even in presence of pus
  4. Effective against *Pseudomonas* and *Clostridia* which are not inhibited by commonly used sulfonamides.

**(B) Answer the following (Any 4)**

[08]

- i. Explain mechanism of action of fluoroquinolones
- ii. Justify - "Aminoglycoside can be administered in single daily dose despite their short half life."
- iii. Justify use of Vitamin B6 along with Isoniazid
- iv. Explain mechanism of action of acyclovir
- v. Classify antimalarial drugs based on clinical use.
- vi. Drug interaction: Sulfamethoxazole and Trimethoprim.

**Q-5 Answer the following:**

[10]

- A) Explain pharmacology of L-asparaginase.
- B) Name the antimicrobial agent producing following adverse reactions and discuss their symptoms with treatment or prevention.
  - (i) Gray baby syndrome
  - (ii) Ototoxicity .

**OR**

- A) What is opportunistic infection? Classify antifungal agents. Write a note on Amphotericin-B.
- B) Bacterial resistance to antibiotics

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

[10]

- A) Write a note on HAART. Explain the significance of it in treatment of AIDS.
- B) What is DOT? Explain drug regimen recommended by WHO for treatment of T.B.
- C) Explain mechanism of action, therapeutic uses and adverse effects of Chloroquine.