

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm. - SEMESTER- I - EXAMINATION – WINTER-2016

Subject Code: 910203

Date: 04/01/2017

Subject Name: Advances in Pharmacology

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** Comment on followings: **16**
- (i) Tamsulosin is used in treatment of benign prostatic hyperplasia.
(ii) Edrophonium is used in diagnosis of myasthenia gravis.
(iii) Methyldopa is used in treatment of hypertension.
(iv) Combination of quinupristin and dalbapristin has synergistic effect.
(v) Co-administration of pyridoxine is beneficial in isoniazid treatment.
(vi) Homatropine is used in diagnosis of refractive error in ophthalmology.
(vii) Primaquine is required for eradication of *P. vivax* infection.
(viii) Procaine benzylpenicillin is useful in treatment of syphilis.
- Q.2** Write mechanism of action for following: **16**
- (i) Bedaquiline (ii) Linezolid (iii) Moxifloxacin (iv) Amphotericin
(v) Raltegravir (vi) Miconazole (vii) Artemether (viii) Levamisole
- Q.3** (a) Classify anti-cancer drugs. Write a brief note on recent advances in anti-cancer treatment. **08**
- (b) Discuss role of drugs acting through modifying serotonin in treatment of migraine and pulmonary hypertension. **08**
- Q.4** (a) Classify immunosuppressants with recent examples. Describe drugs acting on immunophilins. Discuss the role of immunosuppressants in organ transplantation. **08**
- (b) Classify β -lactam antibiotics (with recent examples). Show various mechanisms responsible for development of resistance in β -lactam antibiotics. Discuss outline of treatment of Methicillin resistant *S. aureus* infections. **08**
- Q.5** (a) Write biosynthesis of eicosanoids. Explain therapeutic significance of drugs modulating effects of eicosanoids. **08**
- (b) Write anti-bacterial spectrum and pharmacokinetics for followings: **08**
- (i) Chloramphenicol (ii) Gentamicin (iii) Rifampicin (iv) Metronidazole
- Q. 6** (a) Draw life cycle of HIV virus showing targets of various anti-HIV agents. Discuss HAART in detail. **06**
- (b) Write a note on: Organophosphorus poisoning. **05**
- (c) Write major adverse effects for following drugs: **05**
- (i) Sulphamethoxazole (ii) Chlorpheniramine (iii) Atropine
(iv) Clofazimine (v) Chloroquine
- Q.7** (a) Classify sympatholytics. Describe their therapeutic uses and adverse effects. **06**
- (b) Write a note on: Non-depolarizing blocking agent. **05**
- (c) Show diagrammatic representation of various drugs (with examples) acting through modifying release and uptake mechanisms in nor-adrenergic transmission. **05**