

**GUJARAT TECHNOLOGICAL UNIVERSITY****D.Ph. - SEMESTER-II • EXAMINATION – SUMMER 2013****Subject Code: 420002****Date: 14-05-2013****Subject Name: Pharmaceutical Chemistry-II****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) Define and classify steroidal drugs. Write a note on progesterone. **06**
  - (b) Write a note on Cotrimoxazole with its importance in Pharmaceutical field. **05**
  - (c) Draw the structure and give the method of numbering of the following heterocycles: (any five) **05**  
i) aziridine ii) pyridine iii) piperazine iv) pyrimidine v) imidazole  
vi) tetrahydrofuran.
- Q.2**
- (a) Define and classify Antibiotics. Write a note on  $\beta$ -lactam antibiotics. **06**
  - (b) Draw the structure and give nomenclature of following drugs: **05**  
i) Indomethacin ii) Thyroxine iii) Sulphacetamide iv) Metronidazole v) Ampicillin  
vi) Ethambutol
  - (c) Define and classify Vitamins. Give synonym and deficiency disease of all vitamins. **05**
- Q.3**
- (a) Define and classify antineoplastic agents. Write a note on mechanism of action of Methotrexate. **06**
  - (b) Give a brief account on diagnostic dyes. **05**
  - (c) Write a note on Local anaesthetics. **05**
- Q.4**
- (a) Define Hypoglycemics. Add a note on Insulin. **06**
  - (b) Define and classify antihistaminics and explain their mechanism of action in brief. **05**
  - (c) Define and classify antimalarial agents. Add a note on chloroquine. **05**
- Q.5**
- (a) Define and classify Adrenergic drugs. Add a note on their therapeutic uses. **06**
  - (b) Give the category of following drugs: **05**  
i) Haloperidol ii) cephaloridine iii) Caffeine iv) atropine v) Neostigmine  
vi) methimazole
  - (c) Define Hypnotics. Classify them and give an account on barbiturates. **05**
- Q. 6**
- (a) Give the structural formula for following functional groups: **06**  
i) benzyl ii) carbamoyl iii) mercapto iv) guanidino v) phenoxy vi) dimethylamino
  - (b) Write a note on Analeptics. **05**
  - (c) Define and classify cholinergic drugs. Add a note on their therapeutic uses. **05**
- Q.7**
- (a) Define and classify antiamoebic drugs giving suitable examples from each class. **06**
  - (b) Write a note on Diuretics. **05**
  - (c) Write a note on antileprotics. **05**

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