

**PY-703**

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**B. Pharm. (Seventh Semester)**

**EXAMINATION, June, 2010**

**PHARMACEUTICAL CHEMISTRY**

**(Medicinal Chemistry—III)**

**(PY-703)**

*Time : Three Hours*

*Maximum Marks : 70*

**Note :** Attempt any *five* questions. All questions carry equal marks.

1. What are Steroids ? Discuss their nomenclature and stereochemistry. Give different chemical tests used for the qualitative analysis of steroids.

*Or*

2. What are high ceiling diuretics ? Classify diuretics on chemical basis giving suitable example. Give chemical name, synthesis and mode of action of any *one* diuretic.

3. What are Sulphonamides ? Discuss their mode of action. Give the chemical name and synthesis of any *two* sulpha drugs.

*Or*

4. Name *three* antimalarials derived from 8-amino-6-methoxy quinoline nucleus. Give their structure, chemical name, uses and the synthesis of any *one* drug.

- (b)  $\alpha$ -glucosidase inhibitors.

*Or*

6. How would you classify the cardiovascular drugs ? Support your answer by giving the structure, chemical name and uses of one potent compound from each category.

Write notes on any *two* of the following :

- (a) Antithyroid drugs
- (b) Adrenocorticoids
- (c) Ergot alkaloids
- (d) Peptide hormones

*Or*

8. (a) How would you classify 'antimetabolites' ?  
(b) Give the structure, synthesis and uses of any *two* of the following :

- (i) Methotrexate
- (ii) Mercaptopurine
- (iii) Azaserine
- (iv) Fluorouracil

9. Classify the antiviral agents giving suitable example with structure under each class. Elaborate on the SAR of the adamantane derivatives.

*Or*

10. Discuss any *two* of the following :

- (a) Structural features of oxytocin and its clinical role
- (b) Structural features of insulin
- (c) Type I and type II diabetes
- (d) Chemotherapeutic consideration of sulphonamides