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**SB-1173**

**Final Year B. Pharm. Examination**

**March / April - 2011**

**PH - 403 : Medicinal Chemistry - II**

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दृशविले निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="Final Year B. Pharm."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="PH - 403 : Medicinal Chemistry - 2"/>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="7"/> <input type="text" value="3"/>	Section No. (1, 2,.....) : <input type="text" value="1&amp;2"/>
	<input type="text" value="Student's Signature"/>

(2) Attempt and tie each section in **separate** answer books.

(3) Each section carries **35** marks.

**SECTION - I**

- 1 (a) Give name and structure of a drug with following characteristics (any **five**) 5
- (i) Liquid sedative
  - (ii) Neuroleptics antihypertensive
  - (iii) Oral anabolic steroid
  - (iv) Analeptic
  - (v)  $\alpha_2$  stimulant antihypertensive
  - (vi) Narcotic antagonist
  - (vii) Used in hypertensive crisis.
- (b) Give structure and chemical name of following drugs : (any **six**) 6
- (i) Meprobamate
  - (ii) Phenylbutazone
  - (iii) Caffiene
  - (iv) Allopurinol
  - (v) Probenecid
  - (vi) Prochlorperazine
  - (vii) Chlorthalidone
  - (viii) Acetazolamide.

- 2** Attempt any **three** questions : **12**
- (a) Discuss structural features of thyroid hormones with respect to their activity.
  - (b) What are neuroleptics ? Write their mechanism classifying them.
  - (c) Explain how structures of all opioids closely resemble each other discussing their activity.
  - (d) How do general and local anesthetics differ from each other ? Classify local anesthetics with structures.
  - (e) What are ovulation inducers ? Write in brief about estrogens.

- 3** Attempt any **two** questions : **12**
- (a) Describe giving examples oxidative reactions of drug metabolism involving C-O and C-S systems.
  - (b) Describe reductive type reactions of drug metabolism giving examples.
  - (c) Classify diuretics giving mechanism of action and also give structures from each class.

## SECTION II

- 4** Write synthesis of following : (any **five**) **10**
- (a) Methadone
  - (b) Diclofenac
  - (c) Carbamazepine
  - (d) Haloperidol
  - (e) Hydralazine
  - (f) Guanethidine
  - (g) Hydrochlorothiazide.

- 5** Write short notes on : (any **five**) **15**
- (a) CNS stimulants
  - (b) Insulin
  - (c) Glucocorticoids
  - (d) Coronary Vasodilators
  - (e) Peptidomimetics and nucleotidomimetics
  - (f) Vitamins A and C
  - (g) Coloring and flavouring agents.

- 6** Attempt any **two** questions : **10**
- (a) Discuss application of prodrugs in drug targeting
  - (b) Discuss SAR and phenothiazines
  - (c) Discuss SAR of benzothiadiazines.