

(LQ 4262)

FEBRUARY 2020

Sub. Code: 4262

B.PHARM. DEGREE EXAMINATION  
THIRD YEAR  
PAPER II – MEDICINAL CHEMISTRY – I

*Q.P. Code: 564262*

Time: Three hours

Maximum: 100 Marks

**I. Elaborate on:**

(2 x 20 = 40)

1. Explain following physico-chemical parameters related to biological activity with example.  
a) Optical isomerism    b) Surface activity    c) Chelation    d) pKa values.
2. a) Sketch synthesis for:    (i) Amitriptyline HCl    (ii) Mephentoin.  
b) Give detailed account of structure-activity relationship of Barbiturates.  
c) Define Antipsychotics and classify with examples.

**II. Write notes on:**

(8 x 5 = 40)

1. Give route of synthesis and mechanism of action of Diazepam.
2. Classify local anesthetics with at least one structure for each class.
3. Give structure, synthesis and uses of Acetazolamide.
4. Describe significance of drug metabolism.
5. Illustrate structure, synthesis and uses of Meclizine HCl.
6. Draw any four structures as Antitussives.
7. Describe biosynthesis of Eicosanoids.
8. Explain structure-activity relationship of morphine analogues.

**III. Short answers on:**

(10 x 2 = 20)

1. Draw two structures of metabolized products of adrenergic neurotransmitters.
2. Give two examples for Neuromuscular blockers and mention their uses.
3. Sketch structure and medicinal uses of Phenylephrine and Etomidate.
4. Give two examples for Prodrugs.
5. Outline structure and medicinal uses of Metoprolol and Phenoxybenzamine.
6. Add a note on Cholinergic Neurochemistry.
7. Give reaction product of Diphenylamine with sulphur in presence of Iodine.
8. Give any two structures of drugs used as proton pump inhibitors.
9. Sketch structure and medicinal uses of Tropicamide.
10. Outline structure and uses of Zomepirac sodium.

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