IR-1753

M. Sc. (Third Semester) Examination, Dec. 2021

DRUG & PHARMACEUTICAL CHEMISTRY

Paper : Third

(Pharmaceutical Medicinal Chemistry-I)

Time Allowed : Three hours

Maximum Marks : 40

Note : *Attempt questions of all **two** sections as directed. Distribution of marks is given with sections.*

Section-'A'

(Short Answer Type Questions) 5×3=15

Note : *Attempt all the **five** questions. Each question carries 3 marks. Maximum word limit for each question is 100 words.*

Unit-I

1. Draw only structures of the following (any **three**) :

(i) Halothane

(ii) Thiopental sodium

(iii) Lithocaine

(iv) Eucaine

(v) Cocaine

Unit-II

2. Give the synthesis of barbiturates.

Or

Give the classification of anticonvulsant drugs.

Unit-III

3. Write the synthesis of adrenaline.

Or

Give the classification of adrenergics.

Unit-IV

4. Discuss the mechanism of action of acetyl choline.

Or

Give the synthesis of echothiophate iodide.

Unit-V

5. What is the difference between analgesics, antipyretics and anti inflammatory drugs, explain with examples.

Or

Give the classification of analgesics and antipyretic drugs.

Section-'B'

(Long Answer Type Questions) 5×5=25

*Note : Attempt all the **five** questions. Each question carries 5 marks. Maximum word limit for each question is 800 words.*

Unit-I

6. Discuss the preparation, properties and application of holothane and chloroform.

Or

Give the synthesis, therapeutic applications and mechanism of action of cocaine.

Unit-II

7. Discuss the structure, synthesis and mode of action of any **one** of the following :

(i) Allobarbital

(ii) Phenobarbital

Unit-III

8. Give the synthesis, therapeutic applications and mechanism of action of Isoprenaline **or** Phenoxybenzamine.

Unit-IV

9. Give the classification and SAR of cholinergic agonist.

Or

Give the synthesis, properties, therapeutic application, side effects and doses of acetyl choline.

Unit-V

10. Discuss the synthesis, SAR, side effects and doses of aspirin.

Or

Discuss the synthesis, mechanism of action and SAR of mefenamic acid.