

**PC-496**  
**M.Sc. CHEMISTRY (FOURTH SEMESTER)**  
**Examination- JUNE-2020**  
Compulsory/Optional  
Group -  
Paper-  
**MEDICINAL CHEMISTRY**

**Time:- Three Hours ]**

**[Maximum Marks:80**

नोट : दोनो खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित है।  
Note: Answer from Both the Section as Directed. The Figures in the right-hand margin indicated marks.

**Section A**

**1. ATTEMPT THE FOLLOWING QUESTIONS** **1x10**

- (a) What approach developed by Hansch analysis in drug industry.
- (b) Name all categories of drug receptors .
- (c) What is passive diffusion mechanism?
- (d) Give structure and chemical name of melphalan.
- (e) Write the classification of antifungal drugs?
- (f) Write the basic structures of antibiotics.
- (g) Write mode of action of hypnotism.
- (h) Write name and structure of an antimalarial drug.
- (i) Write mechanism of action of chloroquine.
- (j) What are general anaesthetics. Give their important features.

**2. ANSWER THE FOLLOWING QUESTIONS** **2x5**

- (a) Write a note on Pharmacodynamics.
- (b) What are cardiovascular drugs. Write structures of verapamil.
- (c) Write mode of action and structures of primaquine.
- (d) Write synthesis of penicillin-G.
- (e) Write a note on alprazolam.

**Section B**

**3. ANSWER ALL QUESTIONS** **12x5**  
Write note on.

- (a) Free Wilson analysis.
- (b) Concept of pro drugs and soft drugs

OR

Discuss factors affective the development of new drugs. Write concept of lead compounds and lead modification.

**4. Write note on.**

- (a) Pharmacokinetics in drug development process.
- (b) Drug metabolism

OR

Discuss important Pharmacokinetics parameters in definite drug disposition and therapeutics.

5. Write synthesis, mode of action and adverse effect of –

- (a) Ciprofloxacin
- (b) Fluconazole

OR

Write notes on-

- (a) Role of alkylation agents and antimetabolites in treatment of Cancer.
- (b) Write a note on mechlorethamine

6. Write synthesis of the following:

- (a) Methyldopa
- (b) Quinidine.

OR

Write mechanism of action adverse effect and structure of the following-

- (a) Amoxicillin.
- (b) Chloramphenicol.
- (c) Streptomycin.

7. Explain Neurotransmission, structures of nerve cell and mechanism of nerve transmission .

OR

Write synthesis of the following-

- (a) Diazepam.
- (b) Thiopental Sodium.
- (c) Phenytoin.