



Seat No. \_\_\_\_\_

**HA-003-1104006**

**M. Sc. (Sem. IV) (CBCS) Examination**

**April - 2023**

**Organo-Pharmaceutical Chemistry : C(OP)-402**

*(Chemistry of Synthetic Drugs)*

**Faculty Code : 003**

**Subject Code : 1104006**

Time :  $2\frac{1}{2}$  / Total Marks : 70

**Instructions :**

- (1) All questions carry equal marks.
- (2) Draw suitable diagram / Scheme wherever it is necessary.
- (3) All questions are compulsory.

**1** Answer the following questions: (any Seven) **14**

- (a) Define the term, anti arrhythmic drug, write the structure of any one.
- (b) Define and mention the difference between hypnotics and sedative.
- (c) Define the term, anti-motility agents , draw the structure of any two of them.
- (d) What are Proton pump inhibitors ?
- (e) Give the synthesis of amoxicillin.
- (f) Write the classification of anti-malarial drug ?
- (g) What do you mean by broad and narrow spectrum antibiotics ?
- (h) Define dihydropyridines, Write structure of lacidipine.
- (i) Define the terms, antifungal agents and write the structure of any two antifungal agents.
- (j) Define the term antitussive and decongestant.

- 2 Answer the following questions : (any Two) 14
- (a) Write any two synthesis of anti-dihedrals antagonist.
  - (b) Give the classification of Diuretic agents and write the synthesis of indapmide and Triamterene.
  - (c) Write the classification of antiviral drug and discuss the synthesis of any two RT-inhibitors.

- 3 Answer the following questions : 14
- (a) Write the classification of anti-diabetic agent and give the synthesis of any two-sulphonyl urea derivative as anti-diabetic agents.
  - (b) Discuss the classification of Gastro intestinal track drugs and write the synthesis of any two antispasmodic agents.

**OR**

- 3 Answer the following questions : 14
- (a) Discuss the life cycle of malarial plasmodium and give the synthesis of atovaquone.
  - (b) Give the synthesis of any three anti-cancer agents.

- 4 Answer the following questions : 14
- (a) Write at least one synthesis of first and second generation of cephalosporin.
  - (b) Write the synthesis of any three sulpha drugs and its application in medicinal chemistry.

- 5 Answer the following questions (any Two) : 14
- (a) Write the synthesis of Rabeprazole and Pantoprazole.
  - (b) Give the synthesis of any two NSAIDS.
  - (c) Write the synthesis of atenolol and Carvedilol.
  - (d) Write the synthesis of celecoxib and valdecoxib.