## K-410

Total Pages: 3 Roll No. .....

# **MCH-609**

### **Drugs and Pharmaceuticals-II**

M.Sc. Chemistry (MSCCH)

4th Semester Examination, 2023 (Dec.)

Time: 2 Hours] [Max. Marks: 35

Note: This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

#### **SECTION-A**

(Long Answer Type Questions)

**Note:** Section 'A' contains Five (05) long answer type questions of Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 9\frac{1}{2} = 19)$ 

- **1.** Explain the importance of enzymes and enzyme products in drug discovery.
- **2.** Classify the nervous system and explain briefly the central nervous system (CNS).
- **3.** What is genetic engineering? Explain.
- **4.** Formulate the synthesis of (S)-ibuprofen and (S)-propranolol.
- **5.** Write a short note on the history of the fermentation of drugs.

#### **SECTION-B**

#### (Short Answer Type Questions)

- **Note:** Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)
- **1.** What is the importance of carbonic anhydrase? Explain briefly the carbonic anhydrase inhibition.
- **2.** What is Pfeffer's rule?
- **3.** What are chiral drugs? Explain its importance.
- **4.** What are microbial agents?

- **5.** How will you obtain B-lactam antibiotics from the Fermentation method?
- **6.** Write the importance of isotopes in Medicinal Chemistry.
- **7.** Write a short note on the Fermentation production of amino acids and vitamins.
- **8.** Write a short note on the following:
  - (a) Sodium Channel.
  - (b) Potassium Channel.