

A-0567

Total Pages : 3

Roll No.

MCH-604

M.Sc. CHEMISTRY (MSCCH)

(Drugs and Pharmaceuticals-I)

3rd Semester Examination, Session December 2024

Time : 2:00 Hrs.

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

Note :- Section 'A' contains Five (05) Long-answer type questions of Nine and Half ($9\frac{1}{2}$) marks each. Learners are required to answer any two (02) questions only.

1. Explain the concept of QSAR with suitable examples.
2. Write an account of the structure-activity relationship studies in sulphonamide antibacterial agents.
3. Write notes on structure and synthesis of the following drugs :
 - (a) Salbutamol
 - (b) Captopril
4. What is the deconvolution ? Explain briefly about the methods involved in the deconvolution.
5. Define the linker. What are the linkers used in combinatorial synthesis ?

Section-B

Short Answer Type Questions 4×4=16

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.

1. Write a short note on any *two* of the following :
 - (a) Penicillin
 - (b) Quinine
 - (c) Sulphadiazine
 - (d) Polymyxin B

2. What is the role of ACE ? Give any *one* example of ACE inhibitors and write their structure.
3. Enumerate the clinical properties of tetracyclines.
4. Define analgesics. Give some examples.
5. What is the Hammett substituent constants(S), and how are they helpful in drug discovery ?
6. Explain briefly about Houghton's Tea Bag procedure.
7. Write a short note about high throughput screening (HTS) ?
8. What are isosteres and bioisosteres ? Explain their role in Drug design.
