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Total Pages : 3

Roll No.

MCH-604

Drugs and Pharmaceuticals-I

M.Sc. Chemistry (MSCCH-20)

3rd Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 40

Note : This paper is of Forty (40) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Ten (10) marks each. Learners are required to answer any Two (02) questions only.

(2×10=20)

1. What is QSAR? Explain the Hansch method of QSAR studies.
2. Explain structure activity relationship studies in sulphonamide antibacterial agents.

3. What are receptors? Explain the role of receptors in the regulation of physiological reactions.
4. What are prodrugs? Discuss the use of ester derivatives and N-methyl derivatives as pro drugs to improve the membrane permeability.
5. Write short note on :
 - (a) Simplification of structure.
 - (b) Rigidification of structure.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Five (05) marks each. Learners are required to answer any Four (04) questions only. (4×5=20)

1. Write the synthesis of penicillin and its disadvantage.
2. What are the Hammett substituent constants, how are they helpful in drug discovery ?
3. Give the synthesis of sulfonamides and its use.
4. Differentiate between agonist and antagonist drugs with suitable example.

5. Write a note on broad spectrum antibiotics (BSAB).
 6. Explain briefly about pharmacokinetics based drug design.
 7. Briefly discuss the various stages involved in drug development.
 8. Discuss the development of Captopril.
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