S-453

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

MCH-603

Natural Product/ Enzyme & Biogenesis

M.Sc. Chemistry (MSCCH)

3rd Semester Examination, 2022 (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.

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. (2×9½=19)

1. Discuss how chemical degradation and spectroscopic methods are useful for the determination of position of the labels in the labelled Natural Products.

2. Discuss biosynthesis of Co-Enzyme A.

3. What are different degradation methods used in alkaloids structure determination and how are they useful?

4. Outline the general biosynthesis of the Prostaglandins.

5. What are various factors affecting the enzyme catalysis?

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. Give the evidence for the hydro-phenanthrene ring system in morphine.

2. Formulate the degradation of rotenone to ressic acid.

3. What are physiological activities of Vitamin A and E.

4. Describe steps involved in citric acid cycle.

5. Write the steps involved in the Urea Cycle.

6. Differentiate between laboratory synthesis and biosynthesis.

7. Write a note on Wick feeding method.

8. Write a brief note on classification of enzymes.
