

M.Sc. (Final) Examination, 2020**CHEMISTRY**

Paper - VII - GR-II (CH-507)

(Chemistry of Natural Products)

*Time Allowed : Three Hours**Maximum Marks : 50*

Note: (i) Attempt any three questions. Candidate has to solve 60 % of the maximum marks i.e. solve for 60 marks out of 100 marks. The unit system in the question paper is abolished. Candidate can solve any question from either/or and can also solve both either/or of the same question. Candidate has to answer for 60 % marks in case of small questions and the questions of less marks.

(ii) Boundations of compulsory question and sections are abolished. If there are parts in any question then attempt all the parts.

(iii) No supplementary answer-book will be given to any candidate. Hence the candidates should write their answers precisely in the main answer-book only.

(iv) All the parts of one question should be answered at one place in the answer-book. On complete question should not be answered at different places in the answer-book.

1. Discuss the following:

- (i) Synthesis and structure determination of menthol.
- (ii) Ozonolysis of phytol.

Or

Give the synthesis and structure determination of β -Carotene.

2. Write notes on the following:

- (i) Stereochemistry of Nicotene
- (ii) Isolation and physiological action of quinine

Or

Give the general method of Morphine (only synthesis of morphine)

3. Explain the following:

- (i) Size of rings A, B, C and D in cholesterol.
- (ii) Stereochemistry of Androsterone and Progesterone.

Or

What is cholesterol? Discuss the synthesis and structure determination of cholesterol

4. Discuss the following:

- (i) How will you confirm that four pyrrole rings are linked haemine?
- (ii) Determination of the structure of Diadzeine.
- (iii) Biosynthesis of flavonoids.

Or

Discuss the synthesis and structure determination of Haemine.

5. Discuss the occurrence, nomenclature, classification and biogenesis of Prostaglandins

Or

Write notes on the following:

- (i) Structure determination of pyrethroids.
- (ii) Give the structure of chlorophyll and how they can be identified in laboratory chlorophyll-a and chlorophyll-b?

—x—