

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7260

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Unique Paper Code : 2173550010

Name of the Paper : FUNDAMENTALS OF NATURAL PRODUCTS

Name of the Course : **B.Sc. (Hons.)**

Semester : VIII

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. **All** questions have equal marks.
3. Attempt any **four** questions in all.

1. (i) What do you understand by natural products? How they can be classified and give suitable examples.

(ii) Describe the principle and working of Column chromatography.

(iii) Explain in detail the steps involved in non-mevalonate pathway.

(5, 5, 5)

2. (i) Explain how isoprene units are linked, give example of each type.

(ii) Briefly discuss the outlines of synthesis of Artemisinin.

(iii) Mention the significance of Vacuum and Steam distillation techniques.

(5, 5, 5)

3. (i) What are proteins. Mention their role in human body.

(ii) What is the full form and structure of LSD. Discuss the biological importance of LSD.

(iii) Mention the name of precursors and resulting products of shikimic acid pathway.

(5, 5, 5)

P.T.O.

4. (i) Define hormones, discuss any two hormones found inside human body with their biological functions.

(ii) Give the biosynthesis of LSD.

(iii) Briefly describe secondary metabolites with relevant examples.

(5, 5, 5)

5. (i) Write short notes on

a) Scope of natural products

b) Maceration technique

c) Phenolic Compounds

(5, 5, 5)

6. (i) Give the name and structures of two terpenoids which violate isoprene rule. Write any two characteristics of terpenes.

(ii) Give the full form of DOXP, MEP, NADPH, IPP, GGPP.

(iii) Discuss the marine sources of natural products with atleast two examples.

(5, 5, 5)