DBM-003-1103014 Seat No. _____

M. Sc. (Sem. III) (CBCS) Examination

June – 2022

Chemistry of Natural Products : C (OP) - 304

Faculty Code : 003

Subject Code : 1103014

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions :

(1) All questions carry Equal marks

(2) Attempt any five questions

1 Answer the following : **14**

(a) Write a note on "Quaternary structure of Protein"

(b) Define the term "Prostaglandins"

(c) Define the term "Hormones" and classify it.

(d) Draw the structure of Hexosterol and Testosterone.

(e) Write the conversion of Vitamin-A_1 to A_2

(f) Give the synthesis of Phytyl Ketone.

(g) Write the synthesis of Guanine.

2 Answer the following **14**

(a) Write the structure of Tilden reagent and explain its role for structure elucidation of terpenoids.

(b) Give the synthesis of Hexosterol

(c) Give the Isolation process of Vitamin-A

(d) Define the term 'Alkaloids' and classify them with suitable example.

(e) Write the synthesis of folic acid.

(f) Write the synthesis of cytosine.

(g) Write the isolation process of Vitamin-K

3 Answer the following : **14**

(a) Give the analytical evidences of Vitamin A_1

(b) Explain in detail structure of nucleus and position of double bone and hydroxy group in cholesterol.

4 Answer the following : **14**

(a) Give the synthesis of Vitamin-C and Vitamin-H.

(b) Write a short note on 'Prostaglandins'.

5 Answer the following : **14**

(a) Write Short note on 'ACTH'.

(b) Discuss the chemistry of Progesterone.

6 Answer the following : **14**

(a) Give analytical : evidences of Vitamin-E1.

(b) Discuss the chemistry of α-pinene.

7 Answer the following : **14**

(a) Give the analytical evidences of Coniine.

(b) Write a note on secondary structure of protein.

8 Answer the following : **14**

(a) Discuss the constitution of Nucleotide.

(b) Write the synthesis of Pantothenic acid.

9 Answer the following : **14**

(a) Write the synthesis of stillbesterol.

(b) Give the synthesis of Riboflavin.

10 Answer the following : **14**

(a) Write the synthesis of farnesol.

(b) Give the synthesis of colchicine.
