



Seat No. _____

HAM-003-1103014

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

June - 2023

(OP)-304 : Chemistry of Natural Products : Ele-II

Faculty Code : 003

Subject Code : 1103014

Time : $2\frac{1}{2}$ / Total Marks : 70

Instructions :

- (1) All questions are compulsory.
- (2) All questions carry equal marks.
- (3) Attempt all questions.

1 Answer the following : (any seven) **14**

- (a) Give the synthesis of Hexosterol.
- (b) Define the term prostaglandins.
- (c) Give general method for the determination of isopropylidene group in natural products.
- (d) Discuss the isolation of Nucleic acid.
- (e) Discuss the characteristic and function of vitamins.
- (f) Discuss the role of Tilden reagent in structure elucidation of terpenoids.
- (g) Write the classification of hormones with suitable example.
- (h) Write the isolation of Vitamin-E.
- (i) Write the synthesis of Adenine.
- (j) Write the classification of terpenoids with suitable example.

2 Answer the following : (any two) **14**

- (a) Write the synthesis of pantothenic acid.
- (b) Discuss the attachment of sugar with purine and pyrimidine base.
- (c) Discuss the constitution of Testosterone.

- 3 Answer the following : 14
- (a) Discuss the Constitutions of Nucleoside.
 - (b) Give analytical evidences of Vitamin K₂.
- OR**
- (a) Discuss structure elucidation of Coniine.
 - (b) Define the term steroid and discuss the chemistry of Progesterone.
- 4 Answer the following : 14
- (a) Give a brief account on structure of the protein.
 - (b) Discuss the nature and position of side chain in cholesterol.
- 5 Answer the following : (any three) 14
- (a) Write the synthesis of pyridoxine.
 - (b) Write the synthesis of Eudesmol.
 - (c) Discuss the synthesis of phytol ketone and conversion of vitamin A₁ to Vitamin-A₂.
 - (d) Discuss the structure elucidation of zingiberene.
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