



MAV-3451 Seat No. _____

M. Sc. (Sem. III) Examination

October / November - 2018

Organic Chemistry : CC CH - 601

Time : 3 Hours] [Total Marks : 70

Instruction : All questions carry equal marks.

1 Answer any **two** of the following : 14

- (1) Determine the structure of Anthocynidine.
- (2) What are flavones ? Give two methods for the synthesis of flavone.
- (3) Write a note on proof of the dihydroporphyrin structure of chlorophyll.
- (4) Discuss the occurrence, isolation, and properties of Quercetin and establish its relationship to Cyanidin chloride.

2 Answer any **two** of the following : 14

- (1) Discuss Ruzika's work to confirm the position of carboxylic group and angular methyl group in abietic acid.
- (2) What are di and tri terpenes ? Discuss the structure of Gibberillic acid.
- (3) Discuss the structure of Phytol.
- (4) Discuss the constitution of Cadinine.

- 3 Answer any **two** of the following : 14
- (1) Give evidence for nature, nucleus and side chain in biotin.
 - (2) Explain in brief: Biological importance of Vitamins.
 - (3) Describe the structure and synthesis of ascorbic acid.
 - (4) What are Vitamins ? Discuss their classification and nomenclature.
- 4 Answer any **three** of the following : 14
- (1) Using evidence discuss Hoffman's exhaustive methylation in elucidating the structure of alkaloids.
 - (2) Why hydrocarbon Yobirine is essential to establish the structure of Reserpic acid.
 - (3) Discuss the structures of α and β Strychninolones.
 - (4) Explain: Nature / size of ring C in Cholchicine.
 - (5) Discuss the degradative and synthetic evidences leading to the structure of opium alkaloid (Narcotine).

5 Answer any **seven** of the following :

14

- (1) Explain the deficiency of Vitamin D₂. Which diseases produced ?
 - (2) How many α and β chains are present in Haemoglobin and What is its end group ?
 - (3) Draw the structure of chlorophyll.
 - (4) What is the basic structure unit of Haemin ?
 - (5) Give structural classification of natural pigments.
 - (6) What is the relation between Flavanol and xanthone ?
 - (7) Give synthesis of Polyporic acid.
 - (8) What is the process to detect isopropylidene grouping in an unknown terpenoid ?
 - (9) Give OzonolysisPhytol.
 - (10) Evidence for presence of a phytyle group in chlorophyll - A
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