

DEPARTMENT OF CHEMISTRY
T3 Examination, MARCH-2018

Semester: IV

Subject: Chemistry of natural Products

Branch: Chemistry

Course Type: Core

Time: 3 Hrs

Max.Marks: 100

Date of Exam: 26.03.2018

Subject Code: CHH624-T

Session: I

Course Nature: Hard

Program: M.Sc. Chemistry

Signature: HOD/Associate HOD

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Note: Attempt six questions in all selecting two questions from each section.

Part A

Q1.

- What do you understand by biosynthesis of secondary metabolites?
- What is the difference between Acetate-Malonate Pathway and Mevalonic acid Pathway?
- What do you understand by acylglycerol & sphingolipids?
- Discuss the method for determining the biosynthetic mechanism? 2.5*4

Q2.

- Define isoprene rule?
- Discuss about the zingiberene?
- Differentiate the monoterpenoids & sesquiterpenoids?
- How do you determine the structure of carotenes? 2.5*4

Q3. What do you understand by diterpenoids. Discuss with example. 10

Part B

Q4

- How will you elucidate the structure of Alkaloids? 5
- Discuss the Morphine? 5
- How to constitute the Quinine? 5
- How do you isolate the alkaloids? 5

Q5

- a. What is the use of methods, Hoffman exhaustive methylation, Embe, Von Braun, reductive degradation, oxidation, alkali distillation in alkaloids 10
- b. Define alkaloids? Discuss the constitution and synthesis of ephedrine 10

Q6. How to differentiate the chemical and bio-synthesis, explain with discussing two examples for each. 20

Part C

Q7.

- a. What do you understand by Hormones? Discuss their classification. 10
- b. What do you mean by Quercetin and Quinones. 10

Q8.

- a. Write down the distinction of isoflavones from flavones and isoflavones. 10
 - b. Define androsterone. Discuss its constitution as well as synthesis. 10
- Q9. Define cholesterol. How to elucidate their structure, explain with synthesis. 20