

M.Sc. Semester - 3 (CBCS) Examination

Oct/Nov. - 2018

CHEMISTRY OF NATURAL PRODUCTS (ELECTIVE -1)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q.1 Answer any **seven** of the following ten questions.

[14 Marks]

1. Write any four structures of nucleosides with its names.
2. Give classification of protein.
3. Give any four examples of Natural product drug.
4. Define the term alkaloid.
5. Differentiate nucleosides and nucleotides.
6. Classify vitamin according to solubility.
7. What is Isoprene rules?
8. Give the skeletal structure of steroid?
9. What is the physiology of prostaglandins.
10. Write a synthesis of colchicines.

Q.2 Answer any **three** of the following four questions.

[14 Marks]

1. Classify alkaloid according to chemical ring system.
2. Give the synthesis of farnesol.
3. Derive the synthesis of Vitamin H.
4. Give synthesis of atropine.

Q.3 Answer the following questions.

[14 Marks]

1. Derive the synthesis of morphine.
2. Discuss the chemistry of vitamin A1.

OR

Q.3 Answer the following questions.

[14 Marks]

1. Discuss the chemistry of zingiberene.
2. Give the synthesis of following.
 - a) Vitamin C
 - b) Longifolene

Q.4 Answer any **two** of the following three questions.

[14 Marks]

1. Give the synthesis of adenine.
2. Discuss the nature and position of side chain in cholesterol.
3. Derive the structure of protein.

Q.5 Answer any **two** of the following four questions.

[14 Marks]

1. Derive the chemistry of nucleic acid.
 2. Give the synthesis of guanine
 3. Give the detail evidence of position of double bond in cholesterol.
 4. Derive the synthesis of following compounds.
 - a) Hexosterol
 - b) Stilbosterol
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