



DHH-003-036202

Seat No. _____

**M. Sc. (Sem. II) (CBCS) Pharma. Organic
Chemistry Examination**

May / June - 2015

POC - 202 : Chemistry of Natural Products

Faculty Code : 003

Subject Code : 036202

Time : 2½ Hours]

[Total Marks : 70

- Instructions:**
1. All Questions are compulsory & carries equal 14 marks
 2. Draw suitable diagram / Scheme wherever necessary.

Q.1 Answer any **SEVEN** of the following: 14

1. Give the abbreviation and structure of the following amino acids:
(1) Alanine (2) Tyrosine (3) Serine (4) Arginine
2. What is Oestrogens ? Give four examples.
3. Define (i) Nucleosides (ii) Nucleotides
4. Give the chemical structure of (i) Corticosterone (ii) Testosterone.
5. Explain Cation exchange resin with example.
6. Give the chemical structure of (i) γ -Tocopherol (ii) Riboflavin
7. Describe the synthesis of Nicotine.
8. Explain the principle of electrophoresis technique with diagram.
9. What are the limitations of linear peptide synthesis?
10. Write a note on enzyme catalyzed group transfer reactions.

Q.2 Answer any **TWO** of the following: 14

1. Give the occurrence, importance & synthesis of morphine alkaloid.
2. Illustrate the Column Chromatographic technique in detail.
3. Explain various hydrolyses enzyme catalyzed organic reaction in detail.

Q.3 Answer the following: 14

1. Describe the Importance and Synthesis of Vitamin A2.
2. Elucidate the position of side chain & angular methyl group in the Cholesterol.

OR

Q.3 Answer the following: 14

1. Establish the position of hydroxyl group & double bond in Cholesterol.
2. Give the Importance and Synthesis of (i) Pantothenic acid (ii) Pyridoxine

Q.4 Answer any **TWO** of the following: 14

1. Describe Occurrence, Pharmaceutical activity and Total Synthesis of Griseofulvin.
2. Write a note on Synthesis of 2'-deoxyribonucleosides.
3. Describe N-protection and C-activation strategy for peptide synthesis in detail.

Q.5 Answer any **TWO** of the following: 14

1. Describe Occurrence, Pharmaceutical activity and Total synthesis of (i) Bursarhemin (ii) Lutonin.
 2. Write a note on Enzyme Catalyzed following reactions:
(i) Addition-Elimination (ii) C-C bond forming
 3. Provide detailed Classification of Amino acids.
 4. Give Importance and Synthesis of (i) Folic acid (ii) Niacin.
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