



NCC-003-036202      Seat No. \_\_\_\_\_

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

April / May - 2017

**Organic Chemistry : POC-202**

*(Chemistry of Natural Products)*

**Faculty Code : 003**

**Subject Code : 036202**

Time : 2½ Hours]

[Total Marks : 70

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

**1** Answer any seven of the following ten questions : **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)  $\alpha$ -tocopherol (ii) ascorbic acid.
- (7) Describe the synthesis of Nicotine.
- (8) Give the classification of the enzymes according to the reaction they catalyze.
- (9) Enlist limitations of linear peptide synthesis.
- (10) Write a note on enzyme catalyzed group transfer reactions.

- 2** Answer any two of the following three questions : **14**
- (1) Give the occurrence, importance & synthesis of morphine alkaloid.
  - (2) Illustrate the Electrophoresis technique in detail.
  - (3) Explain various hydrolyses enzyme catalyzed organic reaction in detail.
- 3** Answer the following questions : **14**
- (1) Describe the importance and synthesis of vitamin A2.
  - (2) Elucidate the position of side chain & angular methyl group in the cholesterol.
- OR**
- 3** Answer the following questions : **14**
- (1) Establish the position of hydroxy group & double bond in the cholesterol.
  - (2) Give the importance and synthesis of (i) Penothenic acid  
(ii) Pyridoxine
- 4** Answer any two of the following three questions : **14**
- (1) Describe Occurrence, pharmaceutical activity and total synthesis of Griseofulvin.
  - (2) Write a note on synthesis of 2'-deoxyribonucleosides.
  - (3) Describe automated solid phase peptide synthesis in detail.
- 5** Answer any two of the following four questions : **14**
- (1) Describe occurrence, pharmaceutical activity and total synthesis of (i) Bursehemin (ii) Lutonin.
  - (2) Write a note on enzyme catalyzed (i) addition-elimination reaction (ii) C-C bond forming reactions.
  - (3) Provide the detailed classification of the amino acids.
  - (4) Give the importance and synthesis of (i) Folic acid  
(ii) Niacin.