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D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

SEMESTER EXAMINATIONS

APRIL - 2016

RPCH4C

ELECTIVE: NATURAL PRODUCTS CHEMISTRY

Time : 3 Hrs

Max.Marks : 75

SECTION-A (5x 6 =30)

Answer ALL the questions.

1. (a) Write the synthesis of morphine.
(Or)
(b) Explain the types of nucleic acids with examples.
2. (a) Explain the synthesis of tripeptides using glycine.
(Or)
(b) Explain briefly Merrifield synthesis.
3. (a) Explain the synthesis of imidazole derivatives and give its application.
(Or)
(b) Explain the synthesis of thiazole derivatives and give example.
4. (a) Explain the synthesis of vitamin A₁ using Reformatsky method.
(Or)
(b) Explain the synthesis of vitamin A₂ and give its application.
5. (a) Elucidate the structure of stigmasterol.
(Or)
(b) Elucidate the structure of ergosterol.

SECTION-B (3x15 =45)

Answer any THREE of the following questions.

6. Explain in detail about the total synthesis of Reserpine. (15)
7. (a) Explain in detail about tertiary structure of proteins. (8)
(b) Explain briefly on biosynthesis of proteins. (7)
8. Explain the synthesis of the following pyrimidine and purine derivatives. (5+5+5)
 - (i) Cytosine
 - (ii) Uracil
 - (iii) Adenine.
9. Explain the synthesis of the following carotenoids. (8+7)
 - (i) α - Carotene
 - (ii) β - Carotene.
10. Explain the biosynthesis of cholesterol and bile acids. (15)

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