M.Sc. Semester-III, Examination, March-2017
Organic Chemistry, Paper X,
Natural Products-I, Subject Code: 3488

Time: 2.5hrs] [Marks: 70

N.B. (i) Attempt all questions.
(ii) All questions carry equal marks

Q.1. (a) Discuss analytical evidences to prove the structure of maltose. 14

OR

Q.1. (a) Discuss analytical evidences to prove the structure of indican. 8
(b) Elucidate the constitution of amylose. 6

Q.2. (a) Discuss analytical evidences to prove the structure of vitamin C. 8
(b) Expalin the role of vitamins on biochemical reactions. 6

OR

Q.2. (a) Discuss analytical evidences to prove the structure of α-tocopherol. 8
(b) Give the synthesis of vitamin A. 6

Q.3. (a) Elucidate the structure of atropine. 8
(b) Give the synthesis of quinine. 6

OR

Q.3. (a) Elucidate the structure of reserpine. 8
(b) Explain the existence of (-O-CH_2-O-) methylenedioxy group in narcotine. 6

Q.4. (a) What are amino acids? Give the structure of following amino acids and classify them on the basis of nature, function and property. 8
(i) Glutamic acid (ii) Thyroxine (iii) Threonine (iv) Histidine
(b) Give the synthesis of following tripeptide by Fischer method given in 1915: H-Leu-Ser-Val-OH. 6

OR

Q.4. (a) Describe Edman's method and Schlack-Kumpf's method employed for determining the sequence of amino acid polypeptide. 8
(b) Describe Sheehan's method for the synthesis of polypeptide. 6

Q.5. (a) Discuss analytical evidences to prove the structure of cadinene. 8
(b) Give the synthesis of farnesol. 6

OR

Q.5. (a) Elucidate the structure of phytol. 8
(b) Prove the existence of three double bonds and primary alcoholic group in farnesol. 6

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