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Total No. of Pages : 01

Total No. of Questions : 08

M.Sc. (Ph. Chem) (Sem.-2)
CHEMISTRY OF NATURAL PRODUCTS
Subject Code : MSPC-104
Paper ID : [F0270]

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries SIXTEEN marks.

- Q1. Explain stereoisomerism and mutarotation. Also explain different methods for determination of the ring size of sugars. (6,10)
- Q2. Define alkaloids. Give the complete classification of alkaloids with two examples and the structure of the two alkaloids from each class. (2,14)
- Q3. What do you understand by the term standardization? Explain various methods for standardization of plant drugs. (16)
- Q4. Write down the natural source for camphor and name the starting raw material for synthesis of camphor at industrial scale. Discuss the structure elucidation of citral. (4,12)
- Q5. (a) Discuss various reactions involved in the structure elucidation of quinine.
(b) Define flavonoids. Give complete classification of flavonoids with two examples and the structure of the two flavnoids from each class. (8,8)
- Q6. Classify the cardiac glycosides with suitable examples with structures. Discuss the structure elucidation of digitoxin. (4,12)
- Q7. (a) Define coumarins. How they are classified?
(b) How will you isolate menthol? (10,6)
- Q8. Explain general reactions of monosaccharides with special emphasis on the reaction with phenylhydrazine explaining the two mechanisms of osazone formation. (16)