

Total No. of Questions : 6]

SEAT No. :

P3172

[Total No. of Pages : 2

[5245]-605

T.Y.B.Pharmacy (Semester - VI)
NATURAL PRODUCT CHEMISTRY
(2013 Pattern)

Time : 3 Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

SECTION - I

Q1) Attempt any one of the following : **[10]**

- a) Explain the different methods of characterization of carbon skeleton of natural products. And also explain elemental composition by combustion analysis.
- b) List out methods to study biogenetic pathways. Explain in detail Tracer Techniques with its significance.

Q2) Attempt any five of the following : **[15]**

- a) Give advantages of HPTLC over TLC.
- b) Explain application of UV
- c) What do you mean by Circular Dichroism?
- d) Write a note on Refractive Index and Optical Rotation
- e) What is the importance of Ozonolysis?
- f) What is grafting? Give applications
- g) Give applications of proton NMR.

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- Q3)** Attempt any two: **[10]**
- a) Principle and applications of IR.
 - b) What is Liquid- liquid chromatography? Add a detailed on HPLC.
 - c) Enlist various strategies of drug discovery. Explain any two.
 - d) What are the various techniques used to investigate the biosynthetic pathways? Describe any one of them.

SECTION - II

- Q4)** Attempt any one of the following: **[10]**
- a) Write a detailed note on natural sweeteners. Add note on Liquorice and Stevia
 - b) Explain the significance of natural products in drug discovery with their biological relevance.

- Q5)** Attempt any five of the following : **[15]**
- a) Biological Sources and chemical constituents of Cochineal.
 - b) Biological Sources and chemical constituents of Stevia.
 - c) Enlist marine anticancer drugs.
 - d) Comment on Liquorice.
 - e) Give general chemistry about colors and dyes.
 - f) Write a note on Turmeric.
 - g) Write a note on Monellin.

- Q6)** Attempt any two : **[10]**
- a) Write a note on MARINE Cardiovascular
 - b) Write a detailed note on natural colorants.
 - c) Write a note on *Gymnema sylvestre*.
 - d) Write detailed note on Serendipity berry and Katemfe.

