

Total No. of Questions : 6]

SEAT No. :

P2000

[5145]-605

[Total No. of Pages : 2

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

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) Enlist different chromatographic techniques used in characterization of natural products. Describe HPTLC method of characterization.
- b) Explain Characterization & structure elucidation of alkaloids by chemical methods.

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

- a) Write a note on optical rotation and Refractive index.
- b) Explain what is rate of reaction.
- c) Write a note on IR spectroscopy.
- d) What is ozonolysis? Explain its role in stereochemistry.
- e) Give the applications of NMR.
- f) Write a short note on chemical derivatization.
- g) Write a note on elucidation of biosynthetic pathways by isolated organ tissues and grafts.

P.T.O.

Q3) Attempt any two: **[10]**

- a) Tracer techniques and its applications.
- b) Principle and applications of HPLC/ GC (anyone).
- c) Explain different spectroscopical methods involved in location of functional groups in natural products.
- d) Write a detailed note on structural elucidation of flavonoids.

SECTION -II

Q4) Attempt any one of the following: **[10]**

- a) Write a detailed note on Marine drugs. Add a note on cardiovascular marine drugs.
- b) Elaborate the role of natural products in new drug discovery.

Q5) Attempt any five of the following: **[15]**

- a) What is the difference between nutritive and non-nutritive sweeteners?
- b) Enlist any six API from natural products.
- c) Write a note on Beet and Indigo dyes.
- d) Explain in detail the use of Monellin.
- e) Give classification of natural colorants.
- f) Write B.S, C.C, & uses of annato.
- g) What do you mean by taste perception?

Q6) Attempt any two: **[10]**

- a) Classify marine cytotoxic agents and give examples.
- b) Enlist various strategies of drug discovery. Explain any two.
- c) Explain in detail the use of Serendipity berry as a sweetener.
- d) Write a note on Gymnema.

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