



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 150806

Roll No.

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B. Pharm.

(SEM. VIII) THEORY EXAMINATION, 2014-15
NATURAL PRODUCTS

Time : 3 Hours]

[Total Marks : 80

Note: Attempt all question. Each question carries equal mark.

1 Attempt **any two**. **8×2**

- (A) Discuss the chemical & spectral approaches in identification of simple molecule of natural origin.
- (B) Write about biogenetic investigation.
- (C) Give Biogenesis any two.
 - (i) Steroid
 - (ii) Terpinene
 - (iii) Alkaloid from ornithine.

2 Attempt **any two**. **8×2**

- (A) Give the structural elucidation of digitoxin.
- (B) Discuss the extraction, isolation and chemistry of Flavonoids.
- (C) Write a note on lignans.

- 3** Attempt **any Four**. **4×4**
- (A) Give a brief account on Natural allergens.
 - (B) Discuss the chemistry of quinoline nucleus with suitable example.
 - (C) Discuss the chemical approaches for the confirmation of Atropine.
 - (D) How will you elucidate the structure of morphine?
 - (E) Discuss about the Photosensitizing agents.
- 4** Attempt **any Four**. **4×4**
- (A) Give the Chemistry of Menthol & establish their structure.
 - (B) How will you elucidate the structure of β carotene, elaborate them with suitable chemical reaction.
 - (C) Discuss the chemistry of α -pinene with suitable chemical reaction.
 - (D) Discuss the extraction & isolation of terpenoids.
 - (E) Write a short note on camphor.
- 5** Attempt **any two**. **8×2**
- (A) Discuss the recent development in immunomodulator drugs of herbal origin.
 - (B) Write short note on any two.
 - (i) Herbal shampoo
 - (ii) Herbal powder
 - (iii) Tooth paste & creams
 - (C) What is the role of herbal drugs in management of diabetes?