

Code: 9R01604

R09

B.Pharm III Year II Semester (R09) Supplementary Examinations May/June 2018

CHEMISTRY OF NATURAL DRUGS

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Discuss the general methods of extraction of alkaloids.
(b) Explain the SAR of Morphine.
- 2 Classify ergot alkaloids. Write about hydrolytic products, pharmacological actions, therapeutic uses and toxicity of ergot alkaloids.
- 3 (a) What are terpenoids? What is their other name? Why the term 'terpene' is not used? Under what conditions can it still be used? Classify the terpenoids by giving examples.
(b) How do you effect the following conversions?
 - (i) Citral to citronellal.
 - (ii) Citral-a to α -terpineol.
 - (iii) Citral to p-cymene.
- 4 (a) What are the sources and properties of Camphor and Borneol? How camphor can be converted into Borneol? What are their uses?
(b) Write the commercial method of preparation of camphor. Add a note on oxidation and reduction reactions of camphor.
- 5 (a) Write the structures and uses of the following steroids.
 - (i) Cholesterol.
 - (ii) Diosgenin.
 - (iii) Stigmasterol.
(b) Write about the Marker's synthesis of progesterone.
- 6 (a) What are steroidal anti-inflammatory drugs? Classify them. Discuss the SAR of steroidal anti-inflammatory drugs.
(b) What are bile acids? Name them. Draw the structures and write the functions of bile acids.
- 7 (a) Write the structures of estrone, estradiol and estriol. Write about their inter conversions.
(b) Write the structures and functions of hormones of thyroid gland.
- 8 (a) Write the structures, biological actions and uses of Mineralocorticoids.
(b) Write a brief note on insulin preparations.
