

KATHMANDU UNIVERSITY  
End Semester Examination [C]  
July, 2017

JUL. 12. 2017

Level : B. Pharm.  
Year : III  
Time : 2 hrs. 30 mins.

Course : PHAR 304  
Semester : I  
F. M. : 55

SECTION "B"

[ 5Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Write down the process of Pyridine ring formation for the biosynthesis of nicotine.
2. Classify the hormones on the basis of chemical composition.
3. Write down the structure and medicinal value of some compounds from Flavanoid class.
4. Structurally elucidate the presence of oxygen as tertiary alcohol in *alpha*-Terpineol.
5. Give short account on Cyanogenic glycosides.
6. How the sterols are chemically different with steroidal alkaloids?
7. What is the product formed when  $\text{CH}_3\text{CHO}$  reacts with  $\text{Ph}_3\text{P}=\text{CRR}'$ ?

SECTION "C"

[ 5Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Write down the chemistry and role of sex hormones.
9. Write down the biosynthesis of Papaverine.
10. Explain the structural elucidation process of Camphor.
11. Classify the lower terpenoids with structures of major compounds.
12. Write down the nomenclature constraints applied on steroidal nomenclature.
13. Write down the mechanism of Perkin reaction and explain the role of alkali salt such as sodium acetate in this reaction.
14. Explain the
  - a. Structural activity of methoxylated flavones in cancer.
  - b. Phytochemicals of *Ginkgo biloba*.

SECTION "D"  
[2Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Explain the medicinal importance of terpenoids with specific structure.
16. Explain the cardiotonic glycosides from plants with its source, chemistry and special applications.
17. Write down the structure and medicinal uses of plant phenolics.