

# Rajiv Gandhi University of Health Sciences, Karnataka

## II Year B.Pharm Degree Examination – DEC-2017

**Time: Three Hours****Max. Marks: 80 Marks**

### PHARMACEUTICAL ORGANIC CHEMISTRY - II (Revised Scheme - 2)

**Q.P. CODE: 1960**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Answer any Two)****2 x 10 = 20 Marks**

1. What do you understand from symmetry operation & elements? How many symmetry operations can describe the symmetry of molecules? Explain any one with example.
2. a) What are carbohydrates? Classify them with examples.  
b) How will you convert D-glucose to D-arabinose and D-fructose to D-glucose? Explain with mechanism
3. Give the synthesis and chemical reactions (five each) for the following:  
i) Furan ii) Thiophene

**SHORT ESSAYS (Answer any Eight)****8 x 5 = 40 Marks**

4. Write a note on skraup synthesis of quinoline.
5. Why pyridine is more basic than pyrrole? How pyridine can be converted to  
i) piperidine ii) n-pentane iii) 3-nitro pyridine
6. a) What is peptide linkage? What are dipeptide and tripeptide?  
b) Explain the following terms: i) Isoelectric point ii) Zwitterions
7. Explain the reaction & stereochemistry i.e, anti or syn addition of bromine to alkenes?
8. Write the structure, chemical name and medicinal uses of any one drug each containing following heterocyclics: i) Quinoline ii) Piperzine iii) Pyridine.
9. Discuss briefly, the mechanism & stereochemistry of E<sub>2</sub> elimination reactions.
10. What are polynuclear hydrocarbons? Give the synthesis & chemical reactions of triphenyl methane.
11. Write note on: Derivatives of Cellulose.
12. What are Diastereomers? Explain giving suitable example.
13. Write explanatory note on: (i) Hardening of oils (ii) Hydrogenation of oils.

**SHORT ANSWERS****10 x 2 = 20 Marks**

14. What is staggered conformation? Give example.
15. What are drying oils?
16. Draw the configuration for S-2 amino propanoic acid.
17. What are non-reducing sugars? Give structural examples.
18. Outline chichibabin reaction.
19. Write the structure and numbering of i) Isoquinoline ii) Acridine.
20. Define protein. Give example.
21. What is resolution?
22. Two colour test for proteins
23. Write the structure & medicinal uses of Tolnaftate.

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