

# Rajiv Gandhi University of Health Sciences, Karnataka

## Second Semester B.Pharm Degree Examination – 18-Mar-2021

Time: Three Hours

Max. Marks: 75 Marks

### Pharmaceutical Organic Chemistry-I Q.P. CODE: 5006

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

All the questions are compulsory

#### LONG ESSAYS

2 x 10 = 20 Marks

1. a. Define and classify carbocation. Add a note on stability of carbocation.  
b. Differentiate between  $SN^1$  and  $SN^2$  reactions

**OR**

- Discuss the mechanism, reactivity and factors effecting in Elimination Uni-molecular reaction.
2. a) Explain the stability of conjugated dienes.  
b) What is peroxide effect? Write its mechanism

#### SHORT ESSAYS

7 x 5 = 35 Marks

3. Write the mechanism and orientation of  $SN^1$  reaction with suitable example

**OR**

- What are Cycloaddition reactions? Explain Diel's alder reaction with mechanism

4. Explain the mechanism of Perkin's condensation

**OR**

- Give the structure and uses of a) Benzyl alcohol b) Benzaldehyde c) Chloroform  
d) Propylene glycol e) Ethyl alcohol
5. Explain the basicity of amines with suitable examples.
  6. Discuss the acidity of carboxylic acid.
  7. Write the statement and reaction mechanism of aldol condensation.
  8. Explain in detail Saytzeff's rule.
  9. Write a note on free radical addition reaction.

#### SHORT ANSWERS

10 x 2 = 20 Marks

10. Write the structure and IUPAC name of a) Acetone b) Diethyl ether.
11. Write the structure of a) 1, 3-butadiene b) 2,4,6-tribromo aniline.
12. What is peroxide effect? Give examples.
13. Write qualitative test for Benzaldehyde and ether.
14. Write the structure and uses of Tartaric acid and Salicylic acid.
15. Write any one qualitative test for Acetone and Paraldehyde.
16. What are leaving groups? Give example.
17. Write the structure and IUPAC name of: a) Methyl formate b) Isopropyl alcohol
18. What is elimination reaction? Give an example.
19. Explain the Chemical reactions of Alcohol.

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