

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Degree Examination – NOVEMBER 2015

Time: Three Hours

Max. Marks: 70 Marks

## PHARMACEUTICAL ORGANIC CHEMISTRY

**Q.P. CODE: 2877**

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. Define and give the mechanism of: (a) Cannizzaro reaction (b) Aldol condensation.
2. State the Anti-Markovnikov's rule. Write the mechanism of addition of HBr to propene in the absence and presence of peroxide.
3. Write the mechanism of Friedel Craft's alkylation and acylation with their limitations.

### SHORT ESSAYS (Answer any six)

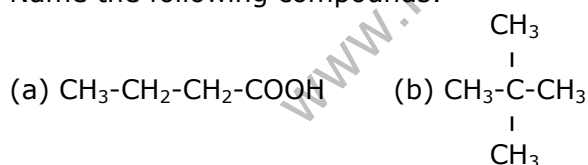
6 x 5 = 30 Marks

4. Write the structure and medicinal uses of Benzyl benzoate, Saccharin sodium.
5. Define and classify isomerism with suitable examples.
6. Discuss about  $S_N1$  mechanism and stereochemistry.
7. Write the effect of temperature in 1,2-addition and 1,4 addition.
8. Discuss Friedel Craft's acylation with mechanism.
9. Explain the mechanism of dehydration of Alcohols.
10. What is Bayer's strain theory and explain with examples.
11. Give the mechanism of Benzoin condensation.

### SHORT ANSWERS

10 x 2 = 20 Marks

12. Outline the conversion of carboxylic acid to ester.
13. Define keto-enol Isomerism with examples.
14. Define Nucleophiles with examples.
15. Name the following compounds:



16. State the Lowry Bronsted theory of Acids and Bases.
17. Which is more stable trans-2-butene or cis-2-butene? Why?
18. What is Homolysis and Heterolysis?
19. Comment phenol is Acidic but not ethanol.
20. Define hyper conjugation.
21. Outline the conversion of Aniline to Benzoic Acid.

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