Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Pharm Degree Examination – Dec-2014

Time: Three Hours **Max. Marks: 70 Marks**

PHARMACEUTICAL ORGANIC CHEMISTRY – I

(Revised Scheme 3)

Q.P. CODE: 2604

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. Explain the stability of conjugated dienes and mechanisms of 1,2 and 1,4 additions with examples.
2. Discuss the mechanisms of
   i) Halogenation of benzene
   ii) Dehydration of alcohols
3. Write the Kinetics, mechanism, stereochemistry and reactivity of SN_2 reaction.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Define the following
   a) Electrophile
   b) Nucleophile
   c) Isomerism
   d) Free radical
   e) Carbocation
5. Write the mechanism involved in chlorination of methane.
6. Write a note on Markovnikov's rule.
7. Explain Hyper conjugation.
8. Discuss Benzoin condensation with mechanism.
9. Explain Sandmeyer's Diazocoupling reactions.
10. Explain acidity of carboxylic acids.
11. Explain Bayer's strain theory.

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

12. Write the IUPAC names of the following a) acetone b) Glycerol
13. Write the reaction of Frie's rearrangement.
14. Write the reaction of Friedel Crafts Alkylation.
15. Compare the basicity of: methyl amine and aniline.
16. How do you convert: carboxylic acid to ester?
17. Write the structures of
    a) 2-pentenal
    b) 2,4 dimethyl pentane
18. Write the classification of carbocations with examples.
19. What is Knoevenagel condensation?
20. Define homolysis and heterolysis with examples.
21. Define hydrogen bonding. Classify with examples.

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