Rajiv Gandhi University of Health Sciences, Karnataka

I Year Pharm-D Examination – MAY 2016

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

PHARMACEUTICAL ORGANIC CHEMISTRY

Q.P. CODE: 2854

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. With suitable examples explain the effect of substituents on electrophilic aromatic substitution reaction.
2. What are elimination reactions? Explain the mechanism, orientation and reactivity of E1 reaction with an appropriate example.
3. Explain the Morkovnikov and Anti-Markovnikov's reactions with suitable examples.

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

4. Explain the mechanism of dehydration of alcohol.

5. Explain the Bayer's strain theory with its limitations.

6. Explain why phenol is more acidic then alcohol?

7. Explain benzoin condensation.

8. Explain the mechanism involved in the addition of HBr to 1,3-butadiene. Explain the effect of temperature on stability of the reaction.
9. Write on acidity of carboxylic acids. Explain resonance structure of carboxylate ion.

10. Mention the activating and deactivating groups with their influence on aromatic ring.

11. Explain Micheal addition reaction.

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

12. Outline the conversion of aniline to benzene.

13. What is polar protic solvent? Give two example.

14. What is free radical? Write the order stability.

15. Write the structure and use of citric acid and paraladehyde.

16. Which isomer of nitrophenol is water soluble and why?

17. Give an example of cyanohydrin reaction.

18. Define carbanion. Give examples.

19. Define dipole moment with examples.

20. What is hyperconjugation? Give examples.

21. What is diazotization? Give examples.

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