THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[B.PHARM 0823] AUGUST 2023 Sub. Code: 2016
(MARCH 2023 EXAM SESSION)

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER II
PAPER II – PHARMACEUTICAL ORGANIC CHEMISTRY I

Q.P. Code: 562016

Time: Three hours **Maximum: 75 Marks**

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss about the reaction mechanism of;
   a. Cannizzaro reaction and Crossed Cannizzaro reaction.
   b. Benzoin condensation.
2. Describe general methods of preparation and any five chemical reactions of Alkene.
3. Explain the basicity and the effect of substituents on the basicity of Amines.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Summarize the general chemical reactions of Alkanes.
2. Define and classify Structural isomerism with examples.
3. Illustrate various methods to distinguish 1°, 2° and 3° alcohols with reactions.
4. Explain the reaction mechanism involved in SN_1 reactions of Alkyl halides.
5. Describe the Addition reactions in Conjugated dienes.
6. Explain the E1versus E2 reactions.
7. Outline the Diazotisation reaction and Hinsberg reactions of Amines.
8. Discuss the qualitative tests for Carboxylic acids.
9. Explain various types of Hybridisation in hydrocarbons.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Sketch the structure of 4- chloro-hex-3-en-2-one and 3-Bromo butane.
2. Define Saytzeff's rule.
3. Sketch the structure and mention the uses of Benzyl benzoate and Iodoform.
4. Recall the structure and uses of oxalic acid and Cinnamaldehyde.
5. Define Inductive effect with an example.
6. List out the electron withdrawing and electron releasing groups.
7. Define nucleophillic addition reaction. Sketch the reaction of hydrogen cyanide with aldehyde.
8. Sketch the structure and mention the uses of Dimethyl phthalate and Succininc acid.
9. Mention the qualitative tests of Amides.
10. What is functional isomerism? Give examples.

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