

D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****NOVEMBER – 2018****15CPCH3C****MODERN SYNTHETIC METHODS AND ORGANIC PHOTOCHEMISTRY**

Time : 3 Hours

Max. Marks: 75

SECTION – A (5 x 6 = 30)**Answer ALL the questions.**

1. (a) Explain the Jablonski Diagram.

(Or)

(b) Discuss about a) Photo reduction b) Di - pi methane rearrangement.

2. (a) Explain the principle of Phase transfer catalyst and its application in the synthesis of Alcohol from Alkyl halides.

(Or)

(b) What are polymers supported reagents? Explain.

3. (a) Discuss the following with examples.

a) Disconnection b) Synthons c) Synthetic equivalent.

(Or)

(b) Show the retro synthesis of Retro Diels Alder reactions.

4. (a) Discuss about Robinson Annulation.

(Or)

(b) Write short notes on Phosphorus ylides.

5. (a) Discuss the need and principles of green chemistry.

(Or)

(b) Explain the importance of Ionic liquids in green chemistry.

SECTION – B (3 x 15 = 45)**Answer any THREE of the following questions.**

6. a) Explain Paterno - Buchi reaction.

(5)

b) Show the inter conversion of hexatrienes to cyclohexadienes.

(5)

c) Give the correlation diagrams for butadiene system.

(5)

7. Explain the uses of the following reagents.

(5x3)

a) DCC b) 1,3 Dithiane c) DIBAL d) 9 - BBN e) Trimethyl silyl chloride.

8. a) Discuss the disconnection approach of alcohols. (5)
b) Explain 1,3 and 1,5 dicarbonyl disconnection approach. (6)
c) Write short notes on functional group interconversion. (4)
9. a) Explain the synthesis of simple organic compounds using (2x5)
i) Enamines ii) Grignard reagents.
b) Discuss the protection and de protection of alcohols. (5)
10. a) Explain the synthesis of the following with the help of green chemistry. (2x3)
i) Adipic acid ii) Paracetamol
b) Discuss the following reactions. (3x3)
i) Coupling reactions ii) Condensation reactions. iii) Photo chemical reactions.
