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D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

SEMESTER EXAMINATIONS

NOVEMBER- 2016

15CPCH3C

MODERN SYNTHETIC METHODS AND ORGANIC PHOTOCHEMISTRY

Time: 3 Hrs

Max.Marks : 75

SECTION-A (5x 6 =30)

Answer ALL the questions.

- (a) Give a brief account on Jablonski diagram.

(Or)

(b) Explain the Paterno Buchi reaction.
- (a) Write the principle of the phase transfer catalysis.

(Or)

(b) Write the synthesis of oligosaccharides.
- (a) Explain the logical and illogical disconnections.

(Or)

(b) Short note on: Synthons and synthetic equivalents.
- (a) Explain the mechanism of alkylation of enamines.

(Or)

(b) Discuss in detail about the Robinson annulation.
- (a) Explain the synthesis of methyl methacrylate and adipic acid.

(Or)

(b) Write the twelve principles of green chemistry.

SECTION-B (3x15 =45)

Answer any THREE of the following questions.

- (a) Explain the Cope and Claisen rearrangement. (8)

(b) Discuss in detail about the interconversion of cyclohexadiene to hexatrienes using correlation diagram method under thermal and photochemical conditions. (7)
- Write the uses of 1,3-dithiane, DCC and trimethylsilylchloride. (15)
- Explain the retro synthesis of some heterocycles containing two nitrogen atoms. (15)
- Explain the protection and deprotection of functional group in organic synthesis using suitable examples. (15)
- Explain the green reactions using supercritical CO₂ and ionic liquids with suitable examples. (15)