

COURSE CODE: 14M2WPY442

MAX MARKS: 30

COURSE NAME: GREEN MEDICINAL CHEMISTRY

COURSE CREDIT: 4

MAX TIME: 2 HRS

Note: All questions are compulsory.

Section A

(1x6=6)

- Q1. What are some of the alternative to traditional solvents in chemical reaction?
- Q2. How will you calculate reaction mass efficiency?
- Q3. Write an example of eco-friendly solvent free reaction.
- Q4. Explain one nonfood industrial use of sugars.
- Q5. How DMC is a green reagent?
- Q6. Explain Eco scale of synthetic reaction.

Section B

(3x3=9)

- Q7. Rank the following reaction types in the order of most economical Wittig reaction, Dehydrohalogenation and Diels-Alder reaction. Explain the order.
- Q8. Explain physical aspect of sonochemistry. Write two examples each of heterogeneous liquid-liquid and solid-liquid reactions.
- Q9. Explain how some of the Diels-Alder reaction in water are accelerated?

Section C

(5x3=15)

- Q10. a) What are the factors that need to be considered for designing a green synthesis? [3]
b) What are the benefits of microwave assisted organic synthesis? [2]
- Q11. What are photo sensitized reactions? How they occur? Discuss pro's and con's of photochemical reactions.
- Q12. What is ionic liquid? How ionic liquids are used for green chemistry. How you can design and prepare ionic liquid? Write any two applications of ionic liquid.