



NOVEMBER/DECEMBER 2018

MCH24A — GREEN CHEMISTRY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

1. (a) Describe advantage and disadvantage of use of protecting groups in organic synthesis.

Or

- (b) How do you select appropriate solvent for condensation reactions?

2. (a) Illustrate the instrumentation of a sonicator.

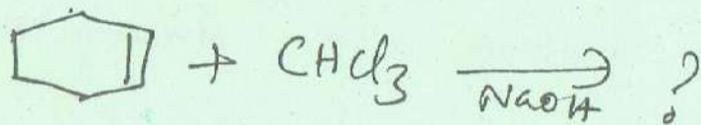
Or

- (b) Explain two microwave assisted N- alkylation reactions.

3. (a) Write the synthesis of 1-butyl – 3 – methyl Indajoiluns salt containing helides and triflates as anions.

Or

- (b) Write a note on polymer supported photo sensitizers.
4. (a) Complete and write the role of PTC for the following reactions :



Or

- (b) Explain phase transfer catalyst promoted benzoin condensations.
5. (a) Explain greener method of manufacture of Vitamin - C.

Or

- (b) What are the Eco friendly pesticides and insecticides? Explain.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

6. Explain twelve principles of green chemistry.
7. (a) Describe the phenomenon of cavitation.
(b) What are the advantages of use of microwaves in organic synthesis?

8. (a) Explain the greener method of synthesis of the oligosaccharides.
(b) Discuss the preparations and alkylation reactions of polymer supported AlCl_3 .
9. (a) Explain the mechanism of actions PTC(Store's cycle).
(b) Give example for PTC assisted Wittig reactions.
10. (a) Illustrate synthesis and application of Ziegler -Natta Catalyst.
(b) Explain their detailed study about metallocene catalysis.

