



I Semester M.Sc. Examination, January 2015
(CBCS)
CHEMISTRY
C – 105 : Green Synthesis (Soft Core)

Time : 3 Hours

Max. Marks : 70

Instruction : Answer question No. 1 and any five of the remaining questions.

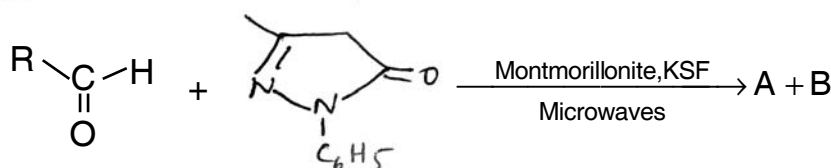
1. Answer **any ten** of the following : (10×2=20)

- a) What are the limitations of ultrasound synthesis ?
- b) Write the frequency range of microwaves and sound waves used for organic synthesis.
- c) What is meant by percentage atom utilisation ?
- d) What are ionic liquids ? Give an example for basic ionic liquid.
- e) What are the properties of a supporting polymer required to attach a reagent ?
- f) Write the structure of [18] – crown – 6 – ether and mention its use.
- g) What are the advantages of polymer-supported reagents in organic synthesis ?
- h) What are phase transfer catalysts ? Give an example.
- i) How is superoxide anion generated ?
- j) Give the starting materials for the synthesis of pyrimidine derivatives from Biginelli reaction.
- k) What are multicomponent reactions ? Give an example.
- l) Mention the advantages of multi component reactions.

Answer **any five** questions.

(5×10=50)

2. a) Predict the products in the following microwave assisted synthesis.



P.T.O.

