

DSE-II, CHEMISTRY HONS.

1. Answer all the questions

[1×8=8]

- i. What is the main objective of green chemistry.
- ii. Give an example of ionic liquid.
- iii. Define atom economy.
- iv. Which chemical is the cause of Bhopal gas tragedy.
- v. Write any green source of energy
- vi. What is right fit pigment.
- vii. Give an example of multifunctional reagent.
- viii. Define proliferation process.

2. Answer any **Eight** the questions

[1.5×8=12]

- I. Discuss various types of biocatalyst.
- ii. Convert benzyl chloride to benzoic acid.
- iii. Calculate atom economy of substitution reaction.
- iv. Write Strecker synthesis.
- v. Why microwave energy is superior than conventional heat energy source.
- vi. Give two examples of separating agent.
- Vi. Write role of real time monitoring in green synthesis.
- vii. give two examples of renewable feed stock.
- vii. Write conversion of toluene into benzoic acid.
- viii. Write two obstacles of green chemistry.
- Ix. Water is a green solvent, Justify.
- x. Write preparation of adipic acid in a greener way.

3. Answer any **Eight** the questions

[2×8=16]

- i. Write the microwave assisted synthesis of Hoffmann elimination.
- ii. Write the microwave assisted synthesis of Diels-Alder reaction
- iii. Write the microwave assisted synthesis of decarboxylation.
- iv. Write the microwave assisted synthesis of oxidation of toluene.
- v. Write ultraviolet assisted reaction of esterification.
- vi. Write ultraviolet assisted reaction of Simmon-smith reaction.

vii. Write ultraviolet assisted reaction of saponification.

viii. Write green synthesis of paracetamol.

ix. Write green synthesis of methyl methacrylate.

x. Write green synthesis of urethane.

4. Answer any **Four** questions

[4×6=24]

i. Write and discuss twelve principles of green chemistry.

ii. Write process of conversion of corn in to polylactic acid and discuss its application.

iii. Write short note on flexiborough accident and Bhopal gas tragedy.

Iv. Discuss in brief about rightfit pigment with proper example.

v. Write a brief note on combinatorial green chemistry.

vi. Discuss role antifoulant in marine life.