

Name of the course: B.Sc.(H) Chemistry/B.Sc.(P) Life Science.

Name of the paper: Green methods in chemistry (SEC)

Semester : IV

Q1. What do you mean by Atom economy? Explain with suitable example. How will you differentiate between a rearrangement reaction and elimination reaction using the concept of atom economy?

Q2. What is the role of solvent in chemical reaction? How is the role fulfilled in solventless reaction. What are the advantages of solventless synthesis. Explain with suitable reactions.

Q3. Write short note on:

- a. Green synthesis of a compostable and widely applicable plastic (poly lactic acid).
- b. Supercritical carbon dioxide.

Q4. Give the twelve principles of green chemistry. Explain any two with the help of suitable examples.

Q5. Fill in the blanks

- a. Microwave heating involves the conversion of _____ energy to _____.
- b. A raw material should be _____ rather than _____ wherever technically and economically feasible.

Q6. Discuss the Simmons Smith reaction using ultrasound technique. How ultrasound technique is beneficial for the above reaction.

Q7. What is SEA-NINE 211?

Q8. Write a reaction of saponification of ester under microwave irradiation.

Q9. Define Rightfit pigments. Why they are also called azopigments?

Q10. Justify the term: $\text{Risk} = f(\text{Hazards} \times \text{Exposure})$. Explain using suitable example. .