

QUESTION – 1 (i) Explain natural and synthetic fibers. 7 MARKS

(ii) Write down the application and properties of poly Caprolactone. 7 MARKS

OR

(i) Explain environmental impact of Biopolymers. 7 MARKS

(ii) Write down the production technologies of Biopolymers. 7 MARKS

QUESTION – 2 (i) list three PLA blends write down properties and application of PLA blends.

7 MARKS

(ii) Define wood & its components. Discuss the dissolution & isolation of cellulose.

7 MARKS

OR

(i) Differentiate between mono and Disaccharides. 7 MARKS

(ii) Write down the polycondensation of Lactic Acid. 7 MARKS

QUESTION – 3 (i) Write the origin, source, structure, properties & application of Polylactides.

7 MARKS

(ii) Describe the types of coupling in natural fiber.

7 MARKS

OR

(i) Describe starch polymer composites. 7 MARKS

(ii) Write the application of thermoplastic starch & cellulose. 7 MARKS

QUESTION – 4 (i) Explain Biodegradable & Compostable polymers?

7 MARKS

(ii) Explain sources, properties, application, structure, importance of cellulose & Wood. 7 MARKS

OR

(i) Explain origin, chemical, structure, properties & applications of Keratin. 7 MARKS

(ii) Write Short Notes on

(i) Hydroxylation (ring opening) of vegetable oil (ii) Edible films & Coatings. 7 MARKS

(P.T.O)

E1463-2

**QUESTION – 5 Attempt any seven out of twelve.**

**14 MARKS**

1. Write down the examples of semisynthetic Polymers?
2. What is the molecular formula of sucrose?
3. What is the chemical structure of Hemicellulose?
4. Which polymer of glucose is stored in animals?
5. Write down the examples of natural fibers?
- 5 .What is biosynthesis?
6. What do you mean by PHA?
- 7 .What is Collagen?
8. What are the sources of cellulose?
- 9 .How many Bio base industries in India?
10. Write down the name of thermoplastic starch.
11. Which mechanism use for the preparation of bio film?
12. What is Elastin?

**END**