

[Time: 2½ Hours]

[Marks:60]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are **compulsory**.
 2. All questions carry equal marks.
 3. Draw neat and labeled diagram wherever necessary.

1. a. Discuss moral issues involved in patenting biotech inventions. 06
b. Explain commercial potential of biotechnology inventions. 06
- OR
1. c. Justify the objectives of plant varieties protection. Comment on its international position and status in Indian context. 12
2. Give a detailed account of the objectives of protection of geographical indications and comment on its international position. 12
- OR
2. Discuss
a. The objectives and concept of protection of traditional knowledge 06
b. Case study related to Erythropoietin 06
3. What are the sources of solid wastes? Discuss different methods of solid waste treatment. 12
- OR
3. a. Define biosensors and explain their role in environmental studies. 06
b. Explain the process and applications of phytoremediation. 06
4. State chemical composition of wastes of paper industry. How biodegradation of wastes can be managed by using biotechnological approaches? 12
- OR
4. Write an account of
a. Biological detoxification 06
b. Modes of removal of oil spillage 06
5. Write short notes on any three of the following 12
a. Genetic techniques and their applications
b. Rational for IPR protection
c. Geographical indication in Indian context
d. Pollution Indicators
e. Waste management from petrochemical
