



Paper Code : 95502

**I Semester B.A./B.Com./B.B.A./B.Sc./B.C.A. Degree
Examination (NEP), April 2023
Subject : BIOTECHNOLOGY (Open Elective)
Paper : Biotechnology for Human Welfare**

Time : 2 Hours

Max. Marks : 60

- Instructions :** 1) Attempt *all* the questions.
2) Draw diagrams/flowcharts *wherever* necessary.

SECTION – A

- I. Answer **any five** of the following in **2 – 3** sentences each. **(5×2=10)**
- 1) Antibiotic.
 - 2) Enzyme lipase.
 - 3) Define ELISA.
 - 4) Aerobic fermentation.
 - 5) Nutrient broth.
 - 6) Clarification.
 - 7) Bioremediation.

SECTION – B

- II. Answer **any four** of the following. **(4×5=20)**
- 1) Write the technique of polymerase chain reaction.
 - 2) Mention the steps for the degradation of chlorinated and non-chlorinated compounds.
 - 3) What is the method involved for the production of alcoholic wine beverage ?
 - 4) Write a short note on applications of biotechnology in Forensic Science.
 - 5) Explain how is the ELISA test performed in molecular diagnostics.
 - 6) What are monoclonal antibodies ? How are they used in cancer treatment ?

P.T.O.





SECTION – C

III. Answer **any three** of the following.

(3×10=30)

- 1) Describe in detail the production of genetically engineered insulin.
 - 2) Explain the process involved in solving the claims of paternity and theft by DNA fingerprinting.
 - 3) Write in detail the steps involved in gene therapy.
 - 4) What is PHB ? Explain the production of PHB and its applications.
 - 5) Explain the applications of protein engineering in food and detergents.
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