



Seat No. : \_\_\_\_\_

# NI-111

November-2025

B.Sc., Sem.-V

## SEC-356 T : Biotechnology (Biotechnology for Human Welfare)

Time : 1:00 Hour]

[Max. Marks : 25

1. Explain the concept of Entrepreneurship Development Discuss the importance of quality in entrepreneurship and elaborate on the role of BIS, ISO certification, and Total Quality Management (TQM) in ensuring product and process excellence. **10**

**OR**

1. (a) Write a note on Promotional agencies supporting biotechnology industries in India with special reference to ICGEB, GSBTM, DBT, and CSIR. **5**
1. (b) Explain the concept of containment levels in biotechnology laboratories and the significance of GLP and GMP. **5**

2. Define Biosafety and Bioethics. Discuss the necessity of bioethics in biotechnology research, explaining the role of the Asilomar Conference and Bioethics Committees. Also highlight major ethical issues related to molecular technologies. **10**

**OR**

2. (a) Explain different types of Intellectual Property Rights (IPR) and their importance in biotechnology with special reference to PVPFR. **5**
2. (b) Write a short note on recent legal aspects in biotechnology such as the ART Act, Surrogacy Act and DNA Technology Regulation Bill. **5**

3. Attempt any **five** out of **six** : **5**
- (1) What does BIS stand for and what is its primary role ?
- (2) Expand GLP and GMP.
- (3) What is the full form of GSBTM ?
- (4) Name the international protocol related to biosafety and movement of GMOs.
- (5) What does TRIPS stand for ?
- (6) What is Biopiracy ?