

M.Sc. (Zoology) Semester - 4 (CBCS) Examination
March/April - 2026 (As Per Syllabus Year June-2019)
Research Methodology, IPR and Biosafety (Core)

Time: 2:30 Hours**Marks:70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Section-01

Que.1 Answer the Following.

- (A) Write about hypotheses testing. (07)
(B) Describe optimization of protocol and data validation. (07)

OR

Que.1 Write a note on Multivariate analysis with examples. (14)**Que.2 Answer the Following.**

- (A) Describe WTO, WIPO and GMOs in detail. (07)
(B) Explain fee structure and time frames patent application. (07)

OR

Que.2 Describe PCT and convention patent applications. (14)**Que.3 Answer any seven out of eight.** (07)

- (1) What is graphical data?
- (2) How plagiarism check can help?
- (3) What is a research problem?
- (4) Explain GATT.
- (5) How to plagiarism can be checked?
- (6) Describe Intellectual Property Right.
- (7) What Traditional Knowledge?
- (8) List out some patents in life sciences.

Section-02

Que.1 Write about review writing and submission with suitable example. (14)

OR

Que.1 Answer the Following.

- (A) Write a research proposal. (07)
(B) Write about International funding agency and its role. (07)

Que.2 Describe international agreements, protocols and transgenic animals. (14)

OR

Que.2 Answer the Following.

- (A) Write about recommended biosafety levels for infectious agents and animals. (07)
(B) Make a note: Institutional Biosafety Committee. (07)

Que.3 Answer any seven out of eight. (07)

- (1) Write about GMOs & LMOs.
- (2) What are Microorganisms?
- (3) What are the challenges of Environmental release of GMOs?
- (4) Enlist the types of research.
- (5) Explain types of scientific research in short.
- (6) Explain RCGM.
- (7) What are the applications of transgenic animals?
- (8) Explain primary containment for biohazards.
