

9242

M.Sc. IVth SEMESTER EXAMINATION, 2019

ZOOLOGY

Paper – II

Animal Biotechnology

Time: Three Hours

Maximum Marks: 80

PART – A (खण्ड – अ)

[Marks: 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब)

[Marks: 40]

Answer five questions (250 words each),

selecting one from each unit. All questions carry equal marks.

प्रत्येक इकाई से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स)

[Marks: 20]

Answer any two questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – A

- Q.1 (i) Define Modern Biotechnology.
(ii) What is rDNA?
(iii) Write the units of a gene.
(iv) What is transfection?
(v) Define cDNA library.
(vi) What is RAPD?
(vii) What is gene targeting?
(viii) What are marker genes?
(ix) Define IPR.
(x) What is copyright?

PART – B

UNIT – I

- Q.2 What is a cloning vector? Why are they necessary?
Q.3 Describe restriction endonucleases.

UNIT – II

- Q.4 Describe gene amplification.
Q.5 Write a short note on transgenic animals.

UNIT – III

- Q.6 Describe chromosome walking.
Q.7 Describe electrophoresis.

UNIT – IV

- Q.8 Write a short note on Human Genome Project.
Q.9 Describe gene regulation by lac-operon.

UNIT – V

- Q.10 Give an account of Bio-safety regulation.
Q.11 Write the role of biotechnology in vaccine production.

PART – C

- Q.12 Write an essay on tools of genetic engineering.
Q.13 What do you understand by recombinant DNA technology? Discuss the various uses of this technology in Biotechnology.
Q.14 Write an essay on Blotting technology.
Q.15 What is gene therapy and what are limitations?
Q.16 Write an essay on patenting the biological material.