

R8379

Sub. Code

509401

M.Sc. DEGREE EXAMINATION, APRIL – 2023

Fourth Semester

Zoology

ANIMAL BIOTECHNOLOGY

(CBCS – 2019 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. List any three genetically modified organisms.
2. Define transgenic animal.
3. What are phagemids?
4. Explain transformation.
5. Explain the application of pyrosequencing?
6. Define transposons.
7. What is primary culture?
8. Write the importance of cell culture media
9. What is targeted gene transfer?
10. Explain superovulation.

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Discuss the principle of recombinant DNA technology.

Or

- (b) Describe the animal cell structure.

12. (a) Classify the types of vectors.

Or

- (b) Explain briefly about cloning in gram positive bacteria.

13. (a) Comment on site directed mutagenesis.

Or

- (b) Highlight the importance of molecular probes.

14. (a) Enumerate the cell culture methods.

Or

- (b) Write about cell growth kinetics.

15. (a) Describe briefly about gene pharming.

Or

- (b) Justify the importance of artificial insemination in cattle.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Elaborate the concepts of genetic engineering with its application.
 17. Elucidate the role of nucleic acid manipulating enzymes.
 18. Highlight the principle and application of DNA microarray.
 19. Discuss the role of valuable cell culture products.
 20. Transgenic animals a Boon or Bane – Discuss.
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