

S.No. 2585

P 16 BT 21

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Biotechnology

rDNA TECHNOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. Write any two properties of DNA.
2. Define restriction enzymes.
3. Write short notes on baculo virus.
4. Define phagemids.
5. Define RNA with any two function.
6. Define expression of cloning system.
7. Define real time PCR.
8. Define RFLP.
9. Define DNA sequencing.
10. Write about siRNA.

SECTION B — ($5 \times 5 = 25$)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain DNA labeling methods with nick translation methods.

Or

- (b) Explain chromatin immuno precipitation method.

12. (a) Write notes on M13 vectors.

Or

- (b) Explain shuttle vector.

13. (a) Explain cDNA and genomic libraries.

Or

- (b) Explain protein-protein interaction methods.

14. (a) Write notes on Multiplex PCR.

Or

- (b) What is proof reading enzyme with an example?

15. (a) Explain Transfection techniques.

Or

- (b) Write notes on suicide gene therapy.

SECTION C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Explain any five enzymes that are used for gene cloning.

17. Write note on YAC and BAC vector.

18. Write about yeast two hybrid system with an example.

19. What is the role of T-Vectors in cloning with an example?

20. Explain Gene Knockouts gene therapy with an example.