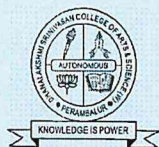


--	--	--	--	--	--	--	--	--	--



**DHANALAKSHMI SRINIVASAN COLLEGE
OF ARTS & SCIENCE FOR WOMEN
(AUTONOMOUS)**

(For Candidates admitted from 2019 - 2020 onwards)



UG DEGREE EXAMINATIONS APRIL - 2021

B.Sc., - BIOTECHNOLOGY

RECOMBINANT DNA TECHNOLOGY

Time: 3 Hrs

Max.Marks: 75

PART - A

CHOOSE THE CORRECT ANSWER

(10X1=10)

1. Which enzyme used for rejoining the DNA _____
 a) DNase b) RNase c) RNA Polymerase d) DNA Ligase
2. Which enzyme is used in PCR technique?
 a) Reverse transcriptase b) RNA Polymerase c) Taq Polymerase d) Alkaline phosphate
3. Thioredoxin protein contain two _____ residues
 a) Cysteine b) Cystine c) Adenine d) Guanine
4. The first genomic libraries were cloned in _____
 a) Human b) Bacteria c) Plasmid d) Plants
5. The Extra Chromosomal, self replicating molecule termed as _____
 a) Cosmid b) Plasmid c) Chromosome d) rDNA
6. Introduce a DNA molecule into the desired organism is term called _____
 a) Transduction b) Transcription c) Translation d) Transformation
7. Which blotting technique used for identity the mRNA molecule _____
 a) Northern b) Southern c) Western d) Eastern
8. DNA finger printing was developed by _____
 a) Francis crick b) Kary mullis c) Khorana d) Alec Jeffrey
9. What are the biosafety levels _____
 a) BSL - 5 b) BSL - 4 c) BSL - 3 d) BSL - 2
10. Cartagena Protocol related with _____
 a) WIPO b) DBT c) WTO d) DST

PART - B

ANSWER ALL THE QUESTIONS

(5X7=35)

11. a) Describe about the following Enzymes

- (i) DNA Ligase (ii) RNA polymerase.

(OR)

b) Explain about Recombinant DNA and its products.

12. a) Elaborate the construction of genomic libraries.

(OR)

b) Give the detail notes about protein Engineering.

13. a) Write Short notes about gene transfer method.

(OR)

b) Explain the Transformation technique.

14. a) Explain the concept and working and application of Western Blotting technique.

(OR)

b) Describe about the Human genome project.

15. a) Give notes on Biosafety management.

(OR)

b) What are the biological weapons and its Ethical issues in biotechnology?

PART - C

ANSWER ANY THREE QUESTIONS

(3X10=30)

16. Detail the Isolation of gene to produce rDNA technique and application of rDNA.

17. Explain about Probe construction and its usage.

18. Illustrate the following techniques (i) Electrophoresis (ii) Particle gun method

19. Describe in detail about RFLP and DNA finger printing with applications.

20. Describe in detail about Cartagena Protocol.