

D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****APRIL - 2018****15CMB4A****MOLECULAR BIOLOGY****Time : 3 Hours****Max. Marks : 75****SECTION – A (10 x 2 = 20)****Answer ALL the questions.**

1. Write about the types of DNA.
2. Draw a structure of DNA.
3. List out the enzymes involved in replication.
4. What are the differences in DNA replication between prokaryotes and eukaryotes?
5. What is intrinsic transcription termination?
6. Define messenger RNA.
7. What is amino acyl T - RNA?
8. Write down the functions of genetic code.
9. Define gene.
10. Define promoter.

SECTION – B (5 x 5 = 25)**Answer any FIVE of the following questions.**

11. Draw a structure of phosphodiester bond and explain in detail.
12. Explain proofreading mechanism of DNA replication.
13. Explain transcription of ribonucleic acid.
14. Explain tRNA in detail.
15. Write a short note on Lac - operon.
16. Write a short note on transcription factor.
17. Explain polymerase and its mechanism in detail.
18. Write a short note on prokaryotic ribosomes.

SECTION – C (3 x 10 = 30)**Answer ALL the questions.**

19. (a) Explain Griffith experiment in detail.

(Or)

- (b) Explain DNA replication in detail.

20. (a) Explain translation of messenger RNA.

(Or)

- (b) Explain replication of RNA in detail.

21. (a) Explain gene expression by trp operon in detail

(Or)

- (b) Explain formation of protein from RNA in detail.