

D. K. M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
NOVEMBER - 2017

15CBC5C

GENETICS AND MOLECULAR BIOLOGY

Time : 3 Hours

Max. Marks : 75

SECTION – A (10 x 2 = 20)

Answer ALL the questions.

1. What are histones?
2. Define back cross.
3. What is the role of DNA polymerase in replication?
4. Define transduction.
5. Give the central dogma of molecular biology.
6. Give a note on reverse transcriptase.
7. What is a codon and anticodon?
8. Define wobble hypothesis.
9. What is transversion?
10. Give short note on SOS repair.

SECTION – B (5 x 5 = 25)

Answer any FIVE of the following questions.

11. Write about the structure and function of chromosome.
12. Prove DNA and genetic material with any one experiment.
13. Explain semi conservative replication.
14. Give an account on post transcriptional modifications.
15. Discuss about the inhibitors of transcription.
16. Discuss the properties of genetic code.
17. Write an essay on post translational modifications
18. Brief the types of mutation.

SECTION – C (3 x 10 = 30)

Answer ALL the questions.

19. (a) Write a summary on law of dominance and independent assortment.

(Or)

- (b) Discuss about the initiation, elongation and termination of prokaryotic replication.

20. (a) Explain the steps involved in transcription.

(Or)

- (b) Give an account on the inhibitors of protein synthesis.

21. (a) Write a summary on translation process in prokaryotes.

(Or)

- (b) Discuss the types of DNA repair mechanism.