

(202ZOO17)

M.Sc. DEGREE EXAMINATION, APRIL 2018

SECOND SEMESTER

Branch - ZOOLOGY

MOLECULAR BIOLOGY

(New Syllabus for batch 2017)

Time : 3 Hours

Max. Marks : 70

I. Answer any FIVE of the following.

(5 × 4 = 20)

1. C-value paradox
2. Photo reactivation
3. Okazaki fragments
4. Replication Fork
5. t-RNA
6. Genetic Code
7. cDNA library
8. PCR.

II. Answer any FOUR of the following.

(4 × 12.5 = 50)

9. (a) Describe the nuclear and mitochondrial genome.

Or

(b) Explain the DNA damage and repair in detail.

10. (a) Discuss the enzymology and molecular mechanism of DNA replication.

Or

(b) Write notes on:

- (i) Bi-directional replication
- (ii) Termination of replication.

11. (a) What is transcription? Explain the molecular mechanism of transcription.

Or

(b) Describe the translation and post translational modifications.

12. (a) Write an essay on the gene regulation and factors influencing the gene regulation.

Or

(b) Describe the various methods of DNA sequencing.

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