

C 5795

(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER P.G. DEGREE (SUPPLEMENTARY) EXAMINATION
SEPTEMBER 2021**

(CUCSS)

Zoology

ZO 3CT 07—CELL AND MOLECULAR BIOLOGY

(2010 Syllabus)

Time : Three Hours

Maximum : 36 Weightage

I. Answer *all fourteen* of the following :

- 1 What are okazaki fragments ?
- 2 Write an account on role of telomerase enzyme.
- 3 What is the role of promoters in transcription ?
- 4 Write a short note on Wobble hypothesis ?
- 5 What is meant by affinity labelling ?
- 6 Write a short account on aminoacyl tRNA.
- 7 Give a short account on tryptophan operon.
- 8 What is Selfish DNA ?
- 9 What are pseudogenes ?
- 10 List any four features of Transposones.
- 11 What are heteroduplex DNA ?
- 12 What is transduction ?
- 13 What are proto-oncogenes ?
- 14 Write any two features of restriction enzymes.

(14 × 1 = 14 weightage)

II. Answer *any seven* of the following :

- 15 Write note on enzymes involved in DNA replication.
- 16 Write a note on major kind of DNA damages.

Turn over

- 17 Write a brief note on post transcriptional modification of RNA.
- 18 Briefly describe the features of genetic code.
- 19 Write a short account on role of chaperones.
- 20 What are Si RNA and mi RNA ?
- 21 Briefly explain the Cot value and complexity of genome.
- 22 Write note on maternal inheritance.
- 23 Briefly describe holiday model of recombination.
- 24 Write briefly on interaction of cancer cells with normal cells.

(7 × 2 = 14 weightage)

III. Answer any *two* of the following :

- 25 Discuss about enzymes involved in DNA replication. Add note on models of prokaryotic DNA replication.
- 26 Describe the composition, topography and active centers' of ribosomes.
- 27 Write an account on translation mechanism.
- 28 Discuss about simple and complex multigene family. Add a short note on organization of globin gene in Man.

(2 × 4 = 8 weightage)

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