

D 71341

(Pages : 2)

Name.....

22

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION
DECEMBER 2014**

(CUCSS)

Zoology

ZO 3CT 07 – CELL AND MOLECULAR BIOLOGY

Time : Three Hours

Maximum : 36 Weightage

I. Answer all *fourteen* of the following :

1. What is semiconservative replication ?
2. Write any *two* features of mismatch repair.
3. What is a Pribnow box ?
4. What are nonsense codons ?
5. What are *r*-protein mutants ?
6. Write about anticodon limb of *t*RNA.
7. List any *two* features of Repressor Protein.
8. What is satellite DNA ?
9. What is attenuation ?
10. Name any *two* features of transcriptional terminator regions.
11. What are LINES and SINES ?
12. What are multi gene complexes ?
13. What is a petite mutation ?
14. Name any *two* enzymes involved in apoptosis.

(14 × 1 = 14 weightage)

II. Answer any *seven* of the following :

15. Write note on role of topoisomerases and ligases.
16. What is the significance of modification enzymes ?
17. Write a brief note on Capping of mRNA.
18. Briefly describe the special features of chloroplast DNA.
19. What translational proofreading ?
20. What are SNURPs ?
21. Briefly explain the mechanism of termination of translation.

Turn over

22. Write note on sex factor in bacteria.
23. Briefly describe the transposons of Maize.
24. Write briefly on virus induced cancers.

(7 × 2 = 14 weighta

III. Answer any *two* of the following :

25. Discuss about the models of replication.
26. Describe the composition, topography and active centers' of ribosomes.
27. Write an account on organization of human genome.
28. Discuss about the new therapeutic interventions of cancer growth.

(2 × 4 = 8 weighta