16P313 (Pages: 2) Name……..

Reg. No……..

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, OCTOBER 2017

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC15P ZO3 C07 - CELL & MOLECULAR BIOLOGY

(Zoology)

(2015 Admission Onwards)

Time : Three Hours Maximum : 36 Weightage

I. Answer ***all*** questions

1. Mention the role of amino acyl t RNA synthetase.
2. What is polyadenylation?
3. What is SOS response?
4. Write any two inhibitors of DNA replication.
5. What is TATA box?
6. Mention any two features of RNA polymerases of phages.
7. Distinguish between start codon and stop codon.
8. What is wobble hypothesis?
9. What is frame shift mutation?
10. Write down the role of gRNAs.
11. What are protooncogenes?
12. Brief account on 'Junk DNA'.
13. What are chaperones?
14. Mention any four features of interrupted genes.

(14x1=14 Weightage)

II. Answer ***any seven*** questions

15. Explain the concept of an evolutionary clock.
16. Distinguish between prokaryotes and eukaryotes protein synthesis.
17. Write an account on RNA editing.
18. What are the special features of chloroplast genome?
19. Write an account on P elements in *Drosophila*
20. Mention the role of Rec A protein in genetic recombination.
21. Brief note on structural organization of *Escherichia coli*.

22. Write an account on virus induced cancer.
23. Explain the regulation of gene expression in phages.
24. What are the various methods of genetic transfer in bacteria

(7 x 2 = 14 Weightage)

III. Answer ***any two*** questions

25. Explain the new therapeutic interventions of cancer.
26. Write an account on transposons in eukaryotes.
27. Give an account on organization on human genome.
28. Explain post translational modification of protein.

(2 x 4 = 8 Weightage)

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