

C 23293

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Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2017

(CUCBCSS-UG)

Common Course

MBY A08—MOLECULAR BIOLOGY AND BIOINFORMATICS

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all the questions.

Each carries ½ mark.

1. The codon UAG is _____.
2. Bacterial transfer of genetic information in Griffith experiment was through the process of ?
3. The consensus sequence AGGAGG represents _____.
4. Small subunit ribosome in prokaryote is _____.
5. Primary database involve _____.
6. Co-repressor of trp operon is ?
7. Lac Z, lac Y, and _____ represent genes of lac operon.
8. Left handed form of DNA is ?
9. α - amanitin is _____ to RNA polymerase II.
10. When compared to DNA polymerase I, the Klenow fragment donot have _____.
11. When mutation do not result in a change to the amino acid sequence of a protein, it is called ?
12. Joining of okazaki fragments of the lagging strand is carried out by ?

(12 × ½ = 6 marks)

Section B

Write short notes on all the questions.

Each carries 2 marks.

13. DDBJ.
14. tRNA.
15. Chromatin.
16. DNA helicase.

Turn over

17. Sigma factor.
18. Nucleotide.
19. BLASTX.
20. Gyrase.
21. CLUSTALW.
22. Photolyases.

(10 × 2 = 20 marks)

Section C

Write notes on any six questions.

Each carries 5 marks.

23. Describe homology modeling and its applications.
24. Explain organization of eukaryotic chromosome.
25. Describe post transcriptional modifications.
26. Explain semiconservative model of DNA replication.
27. Explain attenuation and its significance.
28. Describe ON-OFF mechanisms of lac operon.
29. Describe rRNA of prokaryotes and eukaryotes.
30. Describe mutation and types of mutation.

(6 × 5 = 30 marks)

Section D

Answer any two questions.

Each carries 12 marks.

31. Describe structure of DNA and various forms of DNA
32. Explain transcription in eukaryotes
33. Write an essay on biological database.

(2 × 12 = 24 marks)