22U524 (Pages: 2) Name: .....

Reg.No: .....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2024

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U ZOL5 B08 - BIOCHEMISTRY AND MOLECULAR BIOLOGY

(Zoology - Core Course)

(2019 Admission onwards)

Time : 2.5 Hours Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 2 marks.

1. Write the importance of primary bonds with example.
2. Explain homoglycan. Give two examples.
3. What is polyacrylamide gel electrophoresis?
4. What is meant by sequencing of peptides?
5. Write down the chemical bonds found in DNA molecule.
6. Mention the Lock and key hypotheses.
7. What is substrate-linked inhibition?
8. What are Okazaki fragments?
9. What is gene?
10. What are RNA polymerase?
11. What is RNA splicing?
12. What is tryptophan operon?
13. What is C-Value paradox?
14. What are transposons?
15. What is transduction?

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer ***all*** questions. Each question carries 5 marks.

16. Comment on reducing monosaccharides.
17. Brief out the glycosidic bond.

18. Differentiate proteogenic and non proteogenic amino acids.

19. Discuss about the clinical importance of lipid profile estimation.

20. Discuss about glycolysis.

21. Explain silencers in transcription.

22. Explain transcription factors.

23. Explain post translational modifications.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any ***two*** questions. Each question carries 10 marks.

24. Explain the structure of proteins.

25. Explain about oxidative phosphorylation.

26. Write an essay on the mechanism of transcription.

27. Write an essay on bacterial genetics.

(2 × 10 = 20 Marks)

****