

M. Sc. DEGREE EXAMINATION, APRIL 2022
BIOINFORMATICS
SECOND SEMESTER

COURSE : CORE
PAPER : GENOMICS AND PROTEOMICS
TIME : 90 MINUTES

MAX. MARKS: 50

SECTION – A

ANSWER ALL THE QUESTIONS

(20 X 1 =20)

1. What is an ORF?
2. How conserved is histone between human and horse?
3. What is gene duplication?
4. Mercaptoethanol _____ the protein
5. Isolation of RNA is favored by the excess addition of _____.
6. Protein- protein interactions are tissue specific. – True/False
7. Synapomorphy is _____.
8. What is non- coding RNA?
9. Exon intron boundaries help in gene identification. – True/False
10. What is an obligate interaction? Give an example.
11. What is a missense mutation?
12. What is the prokaryotic homolog of HSP40?
13. Define hydrophobic collapse.
14. _____ and _____ two dyes used in microarray
15. Give an example of super secondary structure of protein.
16. The pitch of a helix is _____.
17. Peptide bond formation is a _____ reaction.
18. Zoo blotting is a technique used to identify _____
19. RIN is _____.
20. Name two genes that are found in humans and not chimpanzees.

SECTION – B

ANSWER ANY TWO OF THE FOLLOWING; .

(2 X 15 =30)

21. What are the three methods available to identify the protein- protein interaction
22. Explain the mechanism involved in SAGE technology.
23. What is the role of GROEL in protein folding?
24. What is distance based phylogenetic methods? Explain the steps.
