SUBJECT CODE: 15BI/PC/MB24

M. Sc. DEGREE EXAMINATION, APRIL 2017
BIOINFORMATICS
SECOND SEMESTER

COURSE   : CORE
PAPER   : MOLECULAR BIOLOGY
TIME   : 3 HOURS   MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS   **(20 X 1=20)**

1. Nucleotide and nucleoside
2. Alu sequence
3. Epigenetic mechanism
4. Human Genome Project
5. Functions of RNA Pol III
6. Shine Dalgarno sequence
7. Rho factor
8. RNA interference
9. Non sense codon
10. Polysomes
11. Signal peptides
12. Consensus sequences
13. Genealogical DNA test – Splicing.
14. Trophectoderm – Heat shock genes.
15. Martilineage – Promoter.
16. RUBISCO subunits – Poly A.
17. Cyclins and cyclin dependent kinases
18. Tumour suppressor
19. Any 4 reasons for cause of cancer
20. Crossing over

SECTION – B

ANSWER ANY FOUR QUESTIONS. EACH ANSWER SHOULD NOT EXCEED 500 WORDS. All QUESTIONS CARRY EQUAL MARKS. DRAW DIAGRAMS WHEREVER NECESSARY **(4 X 10 = 40)**

21. Write notes on types of transposable elements.

22. Describe various post transcriptional modifications.

23. Give an account on translational regulation in prokaryotes

24. Briefly explain about genetic control of vertebrate immune system.

25. Explain the organization of chloroplast genome.

26. Illustrate and explain about the cell cycle regulation.

27. Draw labeled diagrams on the sub stages of Meiosis I.

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER SHOULD NOT EXCEED1200 WORDS. All QUESTIONS CARRY EQUAL MARKS. DRAW DIAGRAMS WHEREVER NECESSARY **(2 X 20 = 40)**

28. Explain in detail about the organization of eukaryotic genome.

29. Describe the transcriptional regulation mechanism seen in eukaryotes.

30. Explicate about the organization and functions of mitochondrial genome.

31. Bring out the details on genetic basis of oncogenesis.

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