

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086
(For candidates admitted from the academic year 2015 – 2016 & thereafter)

SUBJECT CODE: 15BI/PC/MB24

M. Sc. DEGREE EXAMINATION, APRIL 2018
BIOINFORMATICS
SECOND SEMESTER

COURSE : CORE
PAPER : MOLECULAR BIOLOGY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS

(20 X 1=20)

1. Histone tetramer
2. Transposable elements
3. Immunoglobulin
4. Transcription
5. Primosome
6. Chloroplast genome
7. RNA dependent DNA polymerase
8. Heat Shock genes
9. Protein sorting
10. Shine – Delgarno sequence
11. Anti-sense RNA
12. Homeo box
13. Split genes
14. Endosymbiotic gene transfer
15. NADH dehydrogenase
16. G1 Phase
17. Tumour suppressor genes
18. Cyclic AMP
19. Crossing over
20. Apoptosis

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. Bring out the significances of transposable elements.
22. Write notes on 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 mitochondrial genome.
26. Illustrate and explain about the cell cycle regulation.
27. Draw labeled diagrams on the sub stages of Prophase I.

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER SHOULD NOT EXCEED 1200 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 prokaryotes.
30. Explicate about the translational regulations in eukaryotes.
31. Bring out the details on genetic basis of cancer.
