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

SUBJECT CODE: 15BY/PC/MB14

M. Sc. DEGREE EXAMINATION - NOVEMBER 2018
BIOTECHNOLOGY
FIRST SEMESTER

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

SECTION – A

ANSWER ALL QUESTIONS: **(20 x 1 = 20)**

1. Comment on Myosin.
2. What is desmosomes?
3. How does Diffusion takes place ?
4. Write about Cilia and flagella.
5. Enumerate the different types of RNA.
6. What is role of DNA polymerase?
7. Define Anticodon .
8. Why Introns are called non coding DNA ?
9. Define Gene.
10. What is mobile DNA ?
11. What is TATA box?
12. Where is Nucleoid found?
13. Which gene is called Antenna pedia ?
14. Write a note on Heat shock proteins.
15. Where does Attenuation occur?
16. When does DNA methylation take place?
17. Define Apoptosis.
18. How Radioactive labeling is done ?
19. Why is Nitrocellulose membrane used for blotting?
20. What is the role of Ubiquitin?

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SECTION – B

ANSWER ANY FOUR QUESTIONS: (4 x 10 = 40)

21. Describe the structure and function of the microtubules.
22. Explain the steps involved in RNA processing.
23. Discuss about the prokaryotic genome.
24. Enumerate the transcriptional activators and repressors.
25. Write about cell cycle.
26. Describe the Homeotic genes.
27. Explain the transcriptional regulation in prokaryotes.

SECTION – C

ANSWER ANY TWO QUESTIONS: (2 X 20 = 40)

28. Write an essay on the structures and functions of the plasma membrane.
29. Describe the organization of eukaryotic genome.
30. Discuss about protein processing, folding, sorting and transport.
31. Explain the blotting techniques and their applications.

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