STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011 – 12 & thereafter)

SUBJECT CODE: 11BY/PC/BC14

M. Sc. DEGREE EXAMINATION, NOVEMBER 2012
BIOTECHNOLOGY
FIRST SEMESTER

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

SECTION – A

ANSWER ALL QUESTIONS: **(20 x 1 = 20)**
DEFINE / EXPLAIN THE FOLLOWING.

1. Fibrous protein with example
2. Isomerism
3. Nucleotides
4. Acidosis
5. Porphyrins
6. Flavinoids
7. Chlorophyll
8. Marker for Metochondria
9. IUB classification
10. Co-factor
11. Rate limiting step
12. Competitive inhibition
13. Ketone bodies
14. Cellular respiration
15. Essential fatty acid
16. Transamination
17. Xenobiotics
18. Buffers
19. Zymogens
20. Role of thrombaxanes

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SECTION – B

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

21. Give an account of nucleic acids structure.

22. Write short notes on sex hormones.

23. Give an account on the factors affecting enzyme specificity.

24. Major steps in urea cycle.

25. Write short notes on biosynthesis of Fatty acids.

26. Metabolic adaptation of body to starvation.

SECTION – C

ANSWER ANY TWO QUESTIONS: DRAW DIAGRAMS WHEREVER NECESSARY: (2 X 20 = 40)

27. How are Xenobiotics metabolised in the body.

28. List out the clinical applications of enzymes.

29. Comment on: a) Porphyrins b) Beta oxidation of fatty acid.

30. Give an account of TCA cycle, add a note on the number of ATP molecules produced by the oxidation of one molecule of glucose.

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