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 2013
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. Acidosis
2. Digestion
3. Proteolytic enzymes
4. Coenzymes
5. Mitochondrial marker enzymes
6. Prostaglandins
7. Acromegaly
8. Diabetes Mellitus
9. Active site of enzyme
10. Specific activity of enzyme
11. Respiratory chain
12. Xenobiotics
13. Zymogen
14. Peptide bond
15. Prosthetic Group
16. Oxidative phosphorylation
17. Hydrogen bond
18. Porphyrins
19. Ketosis
20. Anamolous temperature of water

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SECTION – B

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

21. Explain the role of water in sustaining life.

22. Explain the role of pancreatic hormones in maintaining blood glucose level.

23. Explain Glycolysis.

24. Give an account on Urea cycle.

25. Explain the respiratory chain with the hypothesis of ATP synthesis.

26. What are sex hormones? Give a brief note on the functions of sex hormones.

SECTION – C

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

27. a) Explain Digestion and absorption of carbohydrates and lipids.

OR

b) Describe TCA cycle with the energy output.

28. a) Derive the MM equation and explain the factors affecting enzyme activity.

OR

b) Explain the metabolism of xenobiotics.

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