

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2009–10)

SUBJECT CODE : CH/PC/BC44

M.Sc. DEGREE EXAMINATION APRIL 2011
BRANCH IV – CHEMISTRY
FOURTH SEMESTER

REG.NO

COURSE : CORE

PAPER : BIOCHEMISTRY

TIME : 30 MINS

MAX. MARKS :20

SECTION – A

TO BE ANSWERED ON THE QUESTION PAPER ITSELF.

Answer all the questions.

(20 x 1= 20)

FILL IN THE BLANKS:

1. The Principal Buffer in extracellular fluid is _____ .
2. ATP was discovered by _____, _____ and _____.
3. Pyrimidine derivatives found in nucleic acid are _____, _____ and _____.
4. Glyceraldehyde 3 phosphate is converted to 1,3 diphospho glycerate in the presence of _____ and _____.
5. Total gain of ATP in TCA cycle is _____.
6. In a redox reaction the molecule that loses electron becomes _____ and the molecule that gains electron becomes _____.
7. Feedback control of the regulating enzyme inhibits the entry of glucose into the glycolytic pathway if the level of _____ is high.
8. The unique properties of water are due to its ability of form _____.

STATE WHETHER TRUE OR FALSE:

9. All transamination reactions of amino acids require the coenzyme pyroxidel phosphate.
10. Oxidation of fatty acids with even number of 'c' atom produce acetyl coA upon oxidative degradation.

ANSWER IN ONE OR TWO SENTENCES:

11. What is a Palindrome?

12. Name two diseases caused due to defective/deficient colleper.

13. What are zymogens? Give examples.

14. Give examples of any 2 irreversible inhibitors of enzyme action.

15. Name the ketone bodies formed during breakdown of fatty acids.

16. Name the Arochidonic Acid Metabolites.

17. Define km.

18. What is Lecithin?

19. What is an inducible enzyme?

20. Define Buffer with an example.



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SECTION – B

Answer any five questions.

(5x8=40)

1. Explain the Haemoglobin buffer system.
2. ATP is the universal currency of free energy in biological system. Explain.
3. Explain the inter conversion of Adenine Nucleotides.
4. Explain the Biological Role of Protein.
5. Differentiate DNA and RNA.
6. Explain the salient feature of Active Site.
7. Explain gluco-neogenesis.

SECTION – C

Answer any two questions.

(2x20=40)

8. Detail the structural organisation of proteins.
9. Explain the detoxification of xerobiotics.
10. What is enzyme immobilisation? Detail on the methods of immobilisation and explain the application of immobilised enzymes.

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