



**III Match the following:**

- |                        |   |                    |
|------------------------|---|--------------------|
| 13. Anterior pituitary | - | Hormone            |
| 14. Catalytic site     | - | ETC                |
| 15. Albinism           | - | Absence of melanin |
| 16. Glycogenesis       | - | Growth hormone     |
| 17. Ketone bodies      | - | enzyme             |
| 18. ATP                | - | Glycogen storage   |

**IV Fill in the blanks:**

19. Important buffer in extra-cellular fluid is \_\_\_\_\_.
20. Blood glucose level is maintained by \_\_\_\_\_.
21. The interaction of substrate & enzyme is explained by \_\_\_\_\_ model.
22. Alkaptonuria is a rare inherited genetic disorder of \_\_\_\_\_ metabolism.
23. \_\_\_\_\_ Hormone is involved in controlling the rate of metabolic processes in the body.
24. TCA cycle is also known as \_\_\_\_\_.

**V Answer in one or two sentences:**

25. What is buffer?
26. What is nucleotide made up of?
27. Name the factors that affect enzyme action.
28. What are ketone bodies?
29. Define hormone.
30. Define iodine value.



**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86**  
**(For candidates admitted during the academic year 2008–09 & thereafter)**

**SUBJECT CODE: CH/MC/BC54**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2011**  
**BRANCH IV- CHEMISTRY**  
**FIFTH SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : BIOCHEMISTRY**  
**TIME : 2½ HOURS**

**MAX.MARKS : 70**

**SECTION – B**

**(5x6=30)**

**Answer any five questions:**

1. Describe how blood pH is maintained.
2. Explain Electron Transport Chain of events.
3. How are enzymes classified based on nature of the reaction?
4. Explain beta oxidation of fatty acids.
5. Explain glycolysis in detail.
6. Give an account of mechanism of enzyme action using Fishers lock & key model, and Koshland's induced fit model.
7. Illustrate with a flow chart the classification of hormones.

**SECTION-C**

**Answer any two questions:**

**(2X20 = 40)**

8. Explain biosynthesis of fatty acids.
9. Explain TCA cycle in detail.
10. Give the assumptions of Michaelis Menten theory, derive the equation, illustrate by means of a plot that  $K_m = [S]$  and give the significance of  $K_m$ .
11. Explain Glycogenolysis & Glycogenesis.

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