

Reg. No. _____

Karunya University

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – May / June 2009

Subject Title: **BIOCHEMISTRY**

Time : 3 hours

Subject Code: **BC201**

Maximum Marks: 100

Answer ALL questions

PART – A (10 x 1 = 10 MARKS)

1. α D – glucose and β D – glucose are related by _____.
2. List out nonessential fatty acids.
3. The bond present in primary structure of protein is _____.
4. Loop of t-RNA molecule contains a minor base _____.
5. The principal breakdown product of purines in human is _____.
6. Differentiate oxidative deamination from nonoxidation deamination.
7. A specific inhibitor for succinate dehydrogenase is _____.
8. The oxidation and phosphorylation in intact mitochondria is blocked by _____.
9. Glycosaminoglycans are attached to extra cellular proteins to form _____.
10. The repeating units of hyaluronic acid is _____.

PART – B (5 x 3 = 15 MARKS)

11. Write the elemental source of pyrimidine.
12. Differentiate nucleotides and nucleosides.
13. Write a short note on α oxidation of fatty acids?
14. TCA cycle is amphibolic in nature – why?
15. Give a short note on Proteoglycans.

PART – C (5 x 15 = 75 MARKS)

16. What are carbohydrates? Classify them giving suitable examples.
(OR)
17. Write down the structure and properties. (7+8)
 - a. Sphingolipids
 - b. Glycolipids
18.
 - a. Comment on essential and non essential amino acids. (5)
 - b. Compare DNA and RNA. (5)
 - c. Describe the structure and function of t RNA. (5)(OR)
19. What are proteins? Classify them giving suitable examples in each group?
20. Describe briefly the pathways for cholesterol synthesis in mammalian cells.
(OR)
21. Write down the catabolic pathway of phenylalanine. Name any two genetic disorder associated with them.
22. Describe the HMP shunt pathway and state its significance.
(OR)
23. Write the structure of ATPase? Describe the chemiosmotic coupling hypothesis.
24. Explain the structure and functions of nucleoproteins.
(OR)
25. What are complex carbohydrates? Write the structure of any three complex carbohydrates.