

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: **FOOD BIOCHEMISTRY AND NUTRITION**

Time : 3 hours

Subject Code: **BC204**

Maximum Marks: 100

Answer ALL questions

PART – A (10 x 1 = 10 MARKS)

1. The theory on β -oxidation of fatty acids was developed by the scientist _____.
2. The total number of ATPs formed in the anaerobic oxidation of Glucose is _____.
3. The hormone that facilitates the transfer of glucose across the cell membrane is _____.
4. Cholesterol is an essential constituent of cell _____.
5. The enzyme SGOT is specific for glutamate and _____.
6. Energy value of food is determined by using the instrument _____.
7. Plant polysaccharide are resistant to hydrolysis by _____.
8. Energy requirement for infants is given in terms of Kcal per unit _____.
9. Most of the chemical carcinogens are _____.
10. Aging is a process manifested by changes in body structure and _____.

PART – B (5 x 3 = 15 MARKS)

11. Give the structure of ADP molecule.
12. Illustrate one deamination reaction.
13. Give one example of food fortification with reasons.
14. Give one example of a glycogen storage disease. What is the cause?
15. Elaborate on the concept of functional foods.

PART – C (5 x 15 = 75 MARKS)

16. Explain the pentose phosphate shunt.
(OR)
17. Explain the interconnections of the metabolic pathways.
18. Explain the biosynthesis of fatty acids.
(OR)
19. Explain the catabolism of cholesterol
20. Define the concept of protein quality. Explain the measurement of protein quality by any two methods.
(OR)
21. Explain two methods for assessment of nutritional status.
22. Give an account of at least five naturally occurring anti-nutritional factors.
(OR)
23. Elaborate on the role of the liver in nutrition with three examples.
24. Elaborate on at least three principles in nutrition applicable to sports with relevant examples.
(OR)
25. Elaborate on two theories of aging. How can you care for the nutritional needs in old age?