

Reg. No. _____

Karunya University

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

End Semester Examination – November / December 2008

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 key enzyme that regulates glycogenesis is _____.
2. Pyruvate enters the TCA cycle after being oxidatively decarboxylated to form _____.
3. Cholesterol is mainly synthesized in the _____.
4. Biosynthesis of pyrimidine begins with the formation of _____ phosphate.
5. Protein efficiency ratio is based on the principle of body _____.
6. The energy value of the carbohydrate is _____ Kcal per gram.
7. The toxic factor in Lathyrus seeds which brings about the paralysis of the limbs is a _____ toxin.
8. There is an inability in the conversion of Phenylalanine to _____ in phenylketonuria.
9. Hypertension is a disease of the _____.
10. The strongest evidence associating a dietary component with reduced cancer risk exists between dietary _____ and colon cancer.

PART – B (5 x 3 = 15 MARKS)

11. Mention two functions of cAMP.
12. Define essential amino acids. Name four of them.
13. Illustrate the peptide linkages between three amino acids.
14. Give the importance of iron and calcium intake in pregnancy.
15. Write a note on the phytate content of cereals.

PART – C (5 x 15 = 75 MARKS)

16. Explain the sequence in the transfer of electrons in the respiratory chain.
(OR)
17. Explain the reactions in the tri carboxylic acid cycle.
18. Explain the synthesis of cholesterol.
(OR)
19. Explain the biosynthesis of proteins with the help of a schematic diagram.
20. Elaborate on three major problems of malnutrition in our country.
(OR)
21. Elaborate on: a. nutrient supplementation b. food fortification
c. Nutrition labeling.
22. Explain the three kidney functions that are altered at the time of disorders
(OR)
23. Explain the causes and out come of three inborn errors in fat metabolism.
24. What is the special nutrition need in pregnancy to ensure normal fetal growth and development?
(OR)
25. Elaborate on the dietary modifications for diabetics.