

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

B.Sc. DEGREE EXAMINATION - FOOD CHEMISTRY & FOOD PROCESSING

FIRST SEMESTER - NOVEMBER 2013

FP 1807 - HUMAN NUTRITION

Date : 08/11/2013
Time : 1:00 - 4:00

Dept. No.

Max. : 100 Marks

Part A

Answer all the questions.

10x2=20 marks

1. Calculate the BMR of Lalitha aged 39 years weighing 145 pounds and 163 cm tall.
2. What is the total calorie intake on a diet comprising of 326g of CHO, 54 g of protein and 38g of fat?
3. List the essential amino acids and give the chemical structure of Methionine and Lysine.
4. Classify immature infants based on the Gestational Age (GA).
5. What is Anorexia Nervosa?
6. How are fatty acids classified based on their chain length?
7. What is the form in which energy is stored in our body?
8. Give any two reasons for the dietary importance of carbohydrates.
9. What is Tolerable Upper Intake Level of nutrients.
10. List the four minerals which are excreted by the action of diuretics.

Part B

Answer any eight questions.

8x5=40 marks

11. Ms. Anuradha aged 34 weighing 66 kgs and measuring 155 cm eats an average of 1800 Kcal per day. She is a labourer in the granite factory cutting stones. Calculate her TDEE (Total Daily Energy Expenditure) and evaluate her energy balance.
12. What is metabolism? Differentiate BMR and RMR.
13. What is Kwashiorkor? Give the characteristic features of the condition.
14. Discuss the digestion of protein in the small intestine.
15. What are the functions of fat in food?
16. Explain the role of minerals in our human system with suitable examples.
17. Discuss any four advantages of feeding human milk to infants.

18. What are the different stages of adulthood? Enumerate the additional nutrient requirements.
19. Briefly explain the functions of Thiamine and Niacin in our system.
20. Write a short note on the functions of Vitamin A
21. Briefly explain the neural tube defects observed in infancy.
22. Discuss the impact of drugs on nutrient absorption.

Part C

Answer any four questions.

4x 10=40 marks

23. Explain the digestion of protein in the human system.
24. Discuss the different classes of fat with suitable examples.
25. Plan a day's menu in accordance with the "My plate" recommendations.
26. Explain the human energy systems with the aid of suitable diagrams.
27. Enumerate the various factors influencing the Basal Metabolic Rate (BMR).
28. What are the causes of malnutrition in old age? Briefly discuss the nutritional requirements for older people.
