



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING

FIRST SEMESTER – NOVEMBER 2016

FP 1807 - HUMAN NUTRITION

Date: 04-11-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

Part A

Answer ALL the questions.

10 x 2 = 20 marks

1. What are complementary proteins? Give examples.
2. Differentiate direct and indirect calorimetry?
3. Give the significance of the 'Food Guide Pyramid'.
4. Give the structure of the following: A. Methionine B. Glycine
5. List any four effects of cancer medications on food intake.
6. Expand the following and mention their nutritional significance.
i. PER ii. BV
7. What is colostrum? Mention its significant role in infants.
8. Define a 'picky eater' and 'food jags'.
9. Calculate the BMI of Ms. Roshini weighing 167 pounds and measuring 173 cm.
10. Mention any two policies of WHO for the aging population.

Part B

Answer ANY EIGHT questions.

8 x 5 = 40 marks

11. Briefly discuss the functions and food sources of the following nutrients:
i) Iron ii). Iodine
12. Explain the formation of the active form of Vitamin D from sunlight with a suitable flowchart.
13. How does the interaction of nutrients affect drug absorption in our body?
14. i) Classify the harmful dietary fats in our diet. ii) Briefly explain their health implications.
15. Briefly discuss any two eating disorders encountered during adolescence.
16. Mr.Ramesh aged 53years weighs 65 kgs and measures 168 cm. He eats on an average 2300 Kcal per day and is the HR manager of a leading software firm. Calculate his TDEE (Total Daily Energy Expenditure) and evaluate his energy balance.
17. What are the causes of "Childhood Obesity".
18. Explain the digestion of carbohydrates in the small intestine with the aid of a flow diagram.
19. What are the signs of good nutrition?
20. Write a short note on direct calorimetric estimation of energy expenditure.
21. Explain the digestion of protein using a suitable flow diagram.
22. Explain NEAT and Adaptive thermogenesis with suitable examples.

Part C

Answer ANY FOUR questions.

4 x 10 = 40 marks

23. Discuss in detail the uniqueness of human milk highlighting its nutritional importance.
24. Enumerate the importance of breakfast in school going children.
25. Discuss in detail the digestive pathway of fats using a suitable flowchart and highlight its dietary importance.
26. Justify the importance of healthy living emphasizing the significance of “Food Guide Pyramid” in balancing our daily diet.
27. Describe the role of hormones in maintaining the blood glucose levels in our body.
28. Explain the aerobic and anaerobic human energy systems in our body.
