



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING

FIRST SEMESTER – NOVEMBER 2014

FP 1807 - HUMAN NUTRITION

Date : 03/11/2014

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

Part A

Answer ALL the questions:

10 x 2 = 20 marks

1. What is Anorexia nervosa?
2. List any four physiological changes that occur in geriatric population.
3. Mention any two ways medications affect nutrients in foods.
4. Expand the following:
 - A. PDCAAS
 - B. NEAT
5. Give the formula for calculating the Biological value (BV) in determining the protein quality of food.
6. Define the 'Phosphagen system' of energy metabolism in muscles.
7. Give examples of minerals used as regulators and tissue builders in our body.
8. What is a lipoprotein? Classify the types of lipoproteins.
9. Calculate the BMR of Sharmila aged 42 years weighing 145 pounds and 163 cm tall.
10. Mention any four signs of good nutrition.

Part B

Answer any EIGHT questions:

8 x 5 = 40 marks

11. Ms. Kala, 34 years weighing 69 kgs and measuring 165 cm eats an average of 2000 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 Marasmus? Describe the appearance of a Marasmic child.
13. What are the various factors affecting the food choices of human beings?
14. Discuss the dietary importance of carbohydrates.
15. Highlight the significance of calcium in the human body.
16. What is the importance of vitamin C in preventing deficiency disorders?
17. Discuss the role of fat in maintaining the integrity of the cell membrane structure.
18. How can drugs interfere with the excretion of nutrients?
19. What are complementary proteins? Write briefly on the types of vegetarianism.
20. Write short notes on the nutritional requirements during infancy and comment on its significance.
21. Explain the role of hormones in the secretion of human milk.
22. Describe the six key components of a healthy lifestyle.

Part C

Answer any FOUR questions:

4 x 10 = 40 marks

23. Enumerate the three types of human energy systems in our body.
24. Justify the importance of healthy living with a suitable example for breakfast and dinner menu plan using the 'My Plate' technique.
25. Describe the digestive pathway for fats using a suitable flow diagram and enumerate the role of fat in our system.
26. Explain in detail the various factors that affect BMR. Calculate the BMR for the following individuals:
 - A. Michael aged 48 years
 - B. Revathy aged 37 years, weighing 68 kg and is 158 cm tall.
27. Enumerate the effect of drugs on the absorption, production and excretion of nutrients.
28. Discuss in detail the complications of pregnancy and the associated nutritional problems.
