

DKM COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

DEPARTMENT OF FOODS AND NUTRITION

HUMAN NUTRITION

Sub code: 15CNF5C

CLASS : III BSC

Unit-1

Two marks

1. Define carbohydrate
2. Absorption of carbohydrate
3. Composition of carbohydrate
4. Metabolism of carbohydrate
5. Functions of carbohydrate
6. What is dietary fibre
7. What is monosaccharide
8. What is disaccharide
9. What is polysaccharide
10. What is sucrose
11. What is lactose
12. What is maltose
13. What is sugar alcohol
14. What are sugar acids
15. Define starch
16. Define dextrins
17. What is rapidly digestible starch
18. What is slow digestible starch
19. What is insoluble and soluble fibre
20. What are the sources of fibre
21. Role of fibre in nutrients
22. Physiological effects of dietary fibre
23. Define resistant starch

24. Glycaemic index formula
25. Define insulin
26. What is glucagon
27. Define epinephrine
28. What is glucocorticoids
29. What is thyroxine
30. What is growth hormone
31. What is source of energy
32. What is protein sparing action
33. What is oxidation of fats
34. Synthesis of ribose from glucose
35. Biosynthesis of amino acids
36. What is barrier of digestion
37. What are fermentable fibres
38. What are non fermentable fibres
39. What is detoxification
40. What is coronary heart disease
41. Define colon cancer
42. What are the process involved in digestion
43. What are the sources of carbohydrate
44. Write any three roles of fibre in preventing diseases
45. Enzymes involved in digestion of carbohydrate
46. Difference between glycogenesis and glycogenolysis
47. What is diabetes mellitus
48. What are the different levels of blood glucose
49. Explain HDL and LDL
50. Which type of foods acts a role in faecal output
51. What is atherosclerosis
52. What are the pathways for removal of glucose from blood
53. Write any two points on direct utilisation
54. What is the normal blood sugar level

5 Marks:

1. Role of different hormones in maintaining blood sugar level
2. Physiological effects of fibre
3. Functions of carbohydrate in body
4. Detail about digestion,absorption,and metabolism
5. Regulation of blood sugar
6. Hormonal controls of carbohydrate
7. Components of carbohydrate
8. Role of fibre in human nutrition
9. Glycaemic index in detail
- 10.Classification of carbohydrate
- 11.What are the conditions associated with the lack of dietary fibre
- 12.Fermantibility of fibre
- 13.Absorption capacity of dietary fibre
- 14.Factore affecting absorption
- 15.Dietary fibre and its components

Ten marks:

1. Explain functions, digestion and absorption of carbohydrate
2. Physiological and metabolic effects of carbohydrate
3. Role of fibre in the prevention of disease
4. Explain dietary fibre and its composition
5. Maintanance of blood glucose levels

UNIT-2

2 Marks

1. Define units
2. Define BMR
3. Define total energy
4. What is respiratory quotient
5. Define kilocalories and megajoules
6. What is direct calorimetry
7. What is indirect calorimetry
8. What is bomb calorimeter

9. Difference between physiological and gross calorific value
10. Write the gross calorific value
11. Give the relation between oxygen required and calorific value
12. What is energy output
13. Benedicts oxy calorimeter
14. What is thermic effect of food
15. What are endocrine glands
16. What is sedentary life style activity
17. What is closed circuit indirect calorimetry
18. What is open circuit indirect calorimetry
19. What is heart rate monitoring method
20. What is energy balance method
21. Define body composition

Five marks

1. Direct calorimetry
2. Indirect calorimetry
3. Determination of energy value of food
4. Bomb calorimeter
5. Total energy requirement
6. Measuring total energy requirement
7. Factors affecting physical activity
8. Factors affecting basal metabolic rate
9. Factors affecting the thermic effect of food
10. Diagram of benedict roth basal metabolism
11. Descirbe briefly about oxy calorimeter
12. Relation between respiratory quotient and energy output
13. Specific dynamic of food

Ten Marks

1. Determination of energy value of food
2. Explain total energy requirement
3. Factors affecting physical activity, bmr and thermic effect of food

4. Explain direct calorimetry
5. Explain indirect calorimetry
6. Explain bomb calorimeter
7. Explain benedict roth basal metabolism apparatus

UNIT-3

Two marks:

1. What is lipids
2. What is EFA and NON-EFA
3. Write any three functions of phospholipid
4. What is protein
5. What is ketone bodies
6. Define PER
7. Define the quality of protein
8. Write the chemical score
9. Write a supplementation of proteins
10. What is phospholipids
11. What is NPO and NPR
12. Write the function of TGL

13. What is DHA
14. Write any two functions of sterols
15. What is PMR and BV
16. Define cholesterol
17. What is PDCAAS? explain
18. What are the sources of EFA
19. Define lipoproteins
20. What is invisible fat
21. What is ketogenesis
22. What are the properties of proteins
23. Write three functions of protein
24. Write three functions of lipids
25. What are the sources of protein
26. Define fatty acids
27. Define MUFA and PUFA

Five marks:

1. Explain the classifications of lipids
2. Write briefly about composition of lipids
3. Briefly discuss about the metabolism of cholesterol
4. Write the functions of fat briefly
5. Write the classification of protein
6. What are the factors affecting protein utilisation
7. Write the specific functions of amino acids
8. Write about amino acid score PDCAAS
9. Write briefly about functions of proteins
10. Write about digestion of fat
11. Write briefly about essential fatty acids

Ten marks:

1. Explain the classification of lipids
2. Write in detail about fat present in body

3. Explain the digestion and absorption of fat in human body
4. Explain the classification of protein
5. Briefly discuss about the functions of protein
6. Explain and evaluate the quality of protein and their formulas
7. Briefly discuss about the functions of protein

UNIT-4

Two marks:

1. Write any three functions of VITAMIN A
2. What is the role of retinoic acid
3. Write any five deficiency of VITAMIN A
4. Define hyper-vitaminosis
5. Write any three functions of VITAMIN D
6. What is osteomalacia
7. List out the deficiency of VITAMIN D
8. Write any three functions of VITAMIN E
9. Write any three functions of VITAMIN K
10. What is haemolytic anaemia
11. Write the types of beri beri
12. What is wernicke's encephalopathy
13. What are the deficiency of riboflavin
14. Write any three functions of niacin
15. What is pellagra
16. Write any three functions of folic acid

17. Define megaloblastic anaemia
18. Define pernicious anaemia
19. Define sickle cell anaemia
20. Write the deficiency of pyridoxine
21. Write any three functions of ascorbic acid
22. What is scurvy
23. What is gingivitis

Five marks:

1. Write briefly about the functions of VITAMIN A
2. Write briefly about the functions of VITAMIN D
3. Write briefly about the functions of VITAMIN E
4. Write briefly about the functions of VITAMIN K
5. Write briefly about the functions of VITAMIN B6
6. Write briefly about the functions of VITAMIN C
7. Write briefly about the functions of biotin and pantothenic acid
8. Write briefly about the functions of folic acid and thiamine
9. Write briefly about the functions of VITAMIN B12 AND NIACIN

Ten marks:

1. Write in detail about fat soluble vitamins
2. Write in detail about water soluble vitamins
3. Explain in detail about the functions and deficiency of vitamin A
4. Explain in detail about the functions and deficiency of vitamin D
5. Write the deficiency of thiamine and riboflavin and its functions
6. Give an account on the importance of folic acid and VITAMIN B12

UNIT 5: Minerals and Water

Two marks:

1. Give the rich food source of niacin and zinc?
2. Give the distribution of water in the body?
3. What are the function of fluorine?
4. What are the sources of copper?
5. Factors assisting calcium absorption?
6. Write the value of calcium content in blood?
7. Write the functions of selenium?
8. Define the deficiency of iron?

Five marks:

1. Write down the effects and deficiency of calcium?
2. Write down the relationship between vitamin E and selenium?
3. Discuss about the distribution of water in the body?
4. Write notes on iodine deficiency disorders?
5. Write about the about the food sources and requirement deficiency disease of fluorine?
6. How the mineral plays a important role in human body?
7. How the compositions of fluids functions in the body?
8. Write about the glucose tolerance test?

9. How the chromium plays a role in human body?
10. Write about the maintenance of fluid in the body?
11. Write about the functions effect of deficiency of the zinc?
12. Write about the maintenance of electrolyte balance?
13. Write about the functions of water in the body?

10 marks:

1. Write in detail about the trace elements and its functions?
2. Explain in detail about the water distribution in the body and exchange of water in the body?
3. Write in detail about the functions, deficiency, and distribution of calcium, Phosphorous, and iron?