

QUESTION BANK

NUTRITION (B.Bsc 1st year)

Unit 1

- a) Role of nutrition in maintain health
- b) Role of nurse in nutritional education
- c) What are the factors affect the food and nutrition
- d) Describe the classification of food
- e) Food standard
- f) Discuss micro and macro nutrients
- g) BMI
- h) Explain factors affecting Basal Metabolic Rate

Unit 2

- a) Digestion, absorption, storage and metabolism of CHO
- b) Describe the classification of CHO
- c) Write the sources of CHO
- d) Define malnutrition
- e) Function of CHO
- f) Caloric value of CHO

Unit 3

- a) Function and absorption of fat
- b) Caloric value of fats
- c) Write the dietary source of fats
- d) Digestion, absorption, storage of fats

Units 4

- a) Function and structure of protein
- b) Digestion, absorption, storage and metabolism of protein.
- c) What is first class protein. State any two important function of protein
- d) Importance of protein in children
- e) Sources of protein
- f) Essential amino acid
- g) Kwashiorkor
- h) Discuss the effect if deficiency of protein and its preventive measures.
- i) Define malnutrition. Describe the clinical feature of severe protein energy malnutrition.
- j) Difference between kwashiorkor and marasmus.
- k) Describe the clinical features, causes and preventive measures of Marasmus and Kwashiorkor.
- l) Protein energy malnutrition

Unit 5

- a) Explain factors affecting basal metabolic rate.
- b) BMI
- c) Write about measurement of energy.

Unit 6

- a) Define vitamin. Classify vitamin.
- b) Digestion, absorption, storage and metabolism of vitamin
- c) Write details about vitamin A deficiency.
- d) Function and deficiencies of vitamin C
- e) Explain the function of vitamin D.
- f) Write in details the function and deficiencies of vitamin A
- g) Synthesis of protein
- h) List sources of thiamine and effect of its deficiency
- i) State importance of vitamin in diet

Unit 7

- a) Classify mineral and write some general function of minerals
- b) Write the factors interfering in absorption of calcium.
- c) Discuss micro and macro nutrients
- d) Deficiency disease of iron and its rich dietary sources.

Unit 8

- a) Describe the effect of deficiency of water and its management
- b) Define electrolyte. What are the sources of electrolyte
- c) Maintenance of fluid and electrolyte balance.
- d) Define dehydration. Explain its management.
- e) Electrolyte imbalance.
- f) Requirement and imbalance of water in the body.
- g) Fluid diet
- h) Dehydration

Unit 9

- a) Define food and classify food
- b) List the principle and reasons for cooking
- c) Discuss the method of cooking
- d) Principles of weaning and foods included
- e) Discuss principles of menu planning
- f) What is safe handling of food
- g) Explain about food adulteration
- h) Food adulteration and its prevention
- i) Prevention of food adulteration act .1954

- j) Food additive and its principles
- k) Food standard
- l) Food fortification
- m) Safe food preparation practices
- n) Discuss the use of heat for food preservation
- o) Describe the effect of cooking on CHO
- p) Explain the factors to be considered while serving food to the patients

Unit 10

- a) Balance diet
- b) Factors influencing food selection
- c) Therapeutic diets
- d) Naturopathy diet
- e) Therapeutic purposes of naturopathy diet
- f) List the uses of recommended dietary allowances

Unit 11

- a) Explain Mid Day Meal Programme
- b) Integrated child development scheme (ICDs)
- c) National iodine deficiency disorder programme
- d) Explain the role of nurse in nutritional programmes
- e) Assessment of nutritional programme

Biochemistry

Unit 1

- a) Structure and function of cell membrane
- b) Structure and function of mitochondria
- c) Differentiate between prokaryote and eukaryote cell

Unit 2

- a) Cytoskeleton
- b) Diffusion
- c) Osmosis
- d) Acid base balance
- e) PH buffers
- f) Explain in details different types of buffers and role of buffers in maintaining acid base balance
- g) What are blood buffers? Describe the factors maintain acid-base balance on the body
- h) What are blood buffers? Explain the role in maintaining blood pH
- i) Describe the fluid mosaic structure of cell membrane
- j) Enumerate various transport mechanisms. Add note on active transport

Unit 3

- a) Define carbohydrate. Types of carbohydrate
- b) Glycogenesis
- c) Sources of CHO
- d) Gluconeogenesis
- e) TCA cycle
- f) Describe pentose phosphate pathway of glucose oxidation .what is its significance.
- g) Describe cori's cycle
- h) Outline the pathway of glycolysis with its energetic
- i) Describe regulation of blood sugar level.
- j) Classify the CHO with suitable example
- k) Write significance of Hexose Monophosphate (HMP) shunt
- l) Write on Kreb's cycle with energetic.
- m) Define CHO. Explain glycolysis in details with its energetic
- n) Polysaccharides
- o) Describe aerobic and anaerobic glycolysis with its energetic
- p) Describe the steps of TCA cycle. add a note on its energetic.

Units 4

- a) Write a note on essential fatty acid
- b) Describe oxidation of fatty acid with its energetic
- c) Classify lipoprotein with their function.
- d) Name lipoprotein and mention one function of each. Add a note on atherosclerosis
- e) What are lipoprotein? classify them and give their function
- f) Metabolism of triacylglycerols.
- g) Write any five function of cholesterol
- h) Digestion and absorption of lipid
- i) Structure and function of cholesterol
- j) Lipoprotein
- k) Classify lipoprotein with their function
- l) Describe beta-oxidation of palmitic acid. Add note on its energetic

Units 5

- a) Describe steps of urea cycle
- b) Define protein. Classify them giving suitable example.
- c) Define oxidation and non- oxidation determination. Describe urea cycle with metabolic disorders.
- d) Function of protein
- e) Protein- energy malnutrition
- f) Principle and application of electrophoresis
- g) Draw urea cycle mentioning enzyme, coenzyme, substrate and product formed in the cycle.
- h) Define protein. Classify protein with suitable example. Write function of proteins.
- i) Write details about protein synthesis

- j) Classify enzyme giving suitable example
- k) Write any four factors affecting enzyme activity
- l) Define enzyme. Classify enzyme and give one example of each class. Add a note on iso - enzymes giving their clinical application.
- m) Competitive inhibition of enzymes.

Unit 6

- a) Enumerate fat soluble vitamins. Give an account of biochemical function of vitamin A.
- b) Describe sources, recommended daily allowances, biological function and deficiency manifestation of vitamin D
- c) Function and deficiency manifestation of vitamin A.
- d) Write any five function of vitamin c
- e) Give sources and function of calcium. Describe serum calcium regulation.
- f) Write five biochemical function of calcium.
- g) Function and deficiency manifestation of calcium
- h) Function of iron

Units 7

- a) What is immunoglobulin? Give their types along with function.
- b) Transmission reaction
- c) Diagrammatic representation of immunoglobulin and state function of IgG and IgM.
- d) Classify immunoglobulin and write on function of each class.
- e) Free radicals and antioxidant
- f) ELISA test
- g) Write about HLA typing.