

SSR DEGREE COLLEGE, NIZAMABAD (5029)

DEPARTMENT OF NUTRITION

SEMESTER – II, Descriptive Questions

Paper II- Nutritional Biochemistry and Human Physiology

UNIT – I: Macronutrients

Short Questions (4 Marks)

1. Glycolysis
2. Citric acid cycle (TCA cycle)
3. Glycogenesis
4. Glycogenolysis
5. Gluconeogenesis
6. Basic steps in Protein synthesis
7. Transamination and urea cycle
8. Essential fatty acids
9. Beta-oxidation

Essay Questions (10 Marks)

1. Describe the Carbohydrate composition, classification, sources, Function, deficiency and excess.
2. Write Lipids composition, classification, sources, Function deficiency and excess
3. Write Protein composition, classification, sources, Function deficiency and excess
4. Describe Amino acid classification and its significance
5. Write about Amino acid and explain chemical and nutritional, deamination, transamination and urea cycle

UNIT – II: Micronutrients, Water, electrolytes and Enzymes

Short Questions (4 Marks)

1. Water soluble Vitamins
2. Fat soluble Vitamins
3. Write about Macro and Micro minerals
4. Extracellular fluids
5. Intracellular Fluids

6. Osmotic pressure
7. Acid-base balance
8. Mechanism of enzyme action

Essay Questions (10 Marks)

1. Describe the Vitamins classification, sources, functions and deficiency symptoms of fat soluble and water-soluble vitamins
2. Describe minerals classification, sources, functions and deficiency symptoms of macro and micro minerals
3. Write about water functions, distribution, intake, and elimination water balance
4. Describe electrolytes, concentrations in intracellular and extra cellular fluids
5. Briefly discuss about enzymes classification (IUBMB), properties, mechanism of enzyme action

UNIT – III: Cell Circulatory System, Nervous System, and Endocrine System

Short Questions (4 Marks)

1. Cell structure and functions
2. Cardiac cycle
3. Cardiac Output
4. Blood composition
5. Blood grouping
6. Hormones

Essay Questions (10 Marks)

1. Describe the Circulatory system- parts and functions of heart, heart rate, cardiac cycle, cardiac output
2. Describe the Nervous system- Classification and functions
3. Write about Hormones- Endocrine glands their secretion and functions
4. Write the Anatomy of Autonomic, Sympathetic and Parasympathetic Nervous System.

UNIT – IV: Respiratory, Digestive and Excretory Systems

Short Questions (4 Marks)

1. Oxygen transport
2. Mechanism of Respiration
3. Carbon-di-oxide transport
4. Digestive glands
5. Excretory system
6. Nephron

7. Write about skin

Essay Questions (10 Marks)

1. Describe the Respiratory system- parts and functions
2. Describe Digestive system parts and functions of GI tract
3. Write about Digestive gland, digestion, absorption and transport
4. Briefly discuss about Urinary system- parts and functions, structure of nephron, formation of urine
5. Discuss about Skin functions and its role in regulation of body temperature