Ref.CICO960-600 Date: 29/01/2019

**SYLLABUS FOR HOME SCIENCE (WAFIYYA DAY COLLEGES)**

**Second Year**
(SEMESTER – 3)

**Unit-1: Introduction to Physiology**
What is a cell?
Structure and Function of a cell
Constituents of a cell and its functions
Cell Membrane
Nucleus
Cytoplasm and its organelles (Endoplasmic Reticulum, Golgi Complex, Mitochondria, Lysosomes..etc)

**Unit- 2:Digestive System**

Introduction
Parts of the digestive system or alimentary system
Alimentary canal:Parts and associated glands (Mouth, Buccal Cavity, Pharynx, Oesophagus, Stomach, Small intestine, Large intestine, Rectum, Anus)
Accessory organs of digestion.
Functions of GIT (Gastrointestinal Tract)
Ingestion
Digestion
Absorption Egestion
Process of digestion and absorption
Mouth and salivary glands, Swallowing, Stomach, Functions of Stomach, Pancreas, Liver and Gallbladder, Small Intestine, Large Intestine (Mention the glands and its functions in each parts ie salivary glands, gastric glands, pancreas, liver, intestinal glands, disorders of digestive system, jaundice, vomiting, diarrhoea, constipation, indigestion)

**Unit- 3 :Circulatory System**

Introduction
Functions Of Circulatory System.
Blood
Composition of Blood
Functions of Plasma and Formed Elements
Blood Vessels
Blood Grouping
Rh Grouping

Lymph
Functions Of Lymph ,
The Heart
Pulse
Blood Pressure
Cardiac Output
Cardiac Cycle
Circulation (Systemic Circulation And Pulmonary Circulation)
Electrocardiograph ECG
Pacemaker
Disorders Of Circulatory System
Immunity (Innate Immunity & Acquired Immunity)

**Unit- 4 :Respiratory System**

Introduction
Pulmonary Respiration
Organs Included in Respiratory System (External Nostrils, Nasal Cavity, Pharynx, Larynx, Trachea, Bronchus, Bronchioles, Alveoli)
Structure And Functions of Lungs
Mechanism of Breathing (Inspiration and Expiration)
Gas Exchange In The Lungs
Gas Transport Between The Lungs And The Tissues
Respiratory Abnormalities (Hypoxia, Asphyxia, Asthma, Emphysema)

**Unit- 5: Excretory System**
Introduction
Excretory System (Kidneys, Uterus, Urinary Bladder And Urethra)
Structure Of Kidney
Nephrons (Structure And Function)
Urine Formation (Glomerular Filtration, Selective Reabsorption, Tubular Secretion)
Composition Of Urine,Micturition,Counter current Mechanism
Role Of Other Organs In Excretion
Excretory Role Of Skin, Lungs, Liver
Disorders Of The Excretory System (Uremia .Renal Calculi. Glomerulonephritis),

SEMESTER – 4

## PHYSIOLOGY- PART 2

**Unit- 1:Sensory Mechanism**

Receptors,Mechanoreceptors,Chemoreceptors
Thermoreceptors ,Photoreceptors,Physiology of hearing and vision

**Unit- 2:Physiology of Muscles**

Skeletal Muscle, Functions of the Muscular System, Neuromuscular Junction, Structure of Myofilaments, Muscle Response, Muscle Twitch, Types of contraction, Role of Calcium in muscle contraction,Mechanism of Muscle contraction

**Unit- 3:Nervous System**

Introduction, Classification, Structure, Reflex Action, Reflex arc, Spinal cord functions, Brain Structure and functions,Transmission of Nerve impulse,Neurodegenerative disorder:Alzheimers desease

**Unit- 4: Endocrine System**

Introduction, Definition, Parts and Functions, Glands and Hormones, Types of Endocrine Disorders.

**Unit- 5: Reproductive System**

Introduction, Male and Female Reproductive Organs, Structure and Functions, Process of oogenesis, Spermatogenesis and Ovulation, Reproductive Hormones, Menstruation, Pregnancy, Physiological Changes during Pregnancy, Delivery, Twins, Menopause.

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