



MUTHAYAMMAL ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi, Accredited by NAAC & Affiliated to Anna University)

Rasipuram - 637 408, Namakkal Dist., Tamil Nadu.

Department of Biomedical Engineering Question Bank - Academic Year (2021-22)

Course Code & Course Name : 19BMC01 & Human Anatomy and Physiology

Year/Sem/Sec : II/III

UNIT I : BASIC ELEMENTS OF HUMAN BODY

Part-A (2 Marks)

1. Define Cell.
2. What are the functions of Cell.
3. Mention the uses of Cell membrane .
4. Define Action Potential
5. What are the types of Glands?
6. What are the functions of Tissues?
7. Mention the functions of Hypothalamus.
8. What is the difference between a membrane potential and an action potential?
9. What happens during depolarization in an action potential?
10. What do you mean by Thyroid disorder?

Part-B (16 Marks)

1. Explain the structure and functions of the cell membrane
2. Briefly explain about Thyroid gland , Pituitary gland and Sebaceous gland.
3. Explain about the transport taking place about the cell membrane.
- 4.
5. Explain in detail about the types of glands.

UNIT II : SKELETAL SYSTEM

Part-A (2 Marks)

1. Mention the classification of bones.
2. What are the functions of Bones
3. Define Lacunae, Lamellae, Canaliculi.

4. What are the common types of Bone Fractures.
5. How bones are being classified?
6. Define joint and mention its types.
7. What is the main function of Pelvic Girdle.
8. Mention the different parts of Vertebral Column
9. How to make bone markings?
10. Define Ossification.

Part-B (16 Marks)

1. What forms the axial Skeleton. Explain the various parts of it.
2. With neat diagram, explain the typical structure of Vertebra.
3. Explain in detail about the classification and Structure of bones.
4. Explain in detail about the Appendicular Skeleton.
5. Define joint. What are the functional and Structural classification in detail

UNIT III : CIRCULATORY SYSTEM

Part-A (2 Marks)

1. What are the functions of right and left atrium.
2. What do you mean by pulmonary and systematic circulation.
3. Define Atherosclerosis.
4. State some functions of blood.
5. Mention some properties of blood.
6. What are the constituents of Plasma.
7. Mention the functions of RBC'S.
8. Define Blood Clotting.
9. What do you mean by Anticoagulant
10. How to control heart beat?

Part-B (16 Marks)

1. Explain the process involved in respiration.
2. Explain about the Lymphatic system.
3. Explain the composition of blood.
4. With neat diagram, explain the functions of human heart.
5. Explain in neat diagram about the Cardiac cycle.

UNIT IV : URINARY AND NERVOUS SYSTEM

Part-A (2 Marks)

1. Define Synapses.
2. What are the types of lobes used in EEG?
3. What do you mean by applied anatomy ?
4. Give some applications of EEG.
5. Write about the location of bladder.
6. Give the divisions of lobes.
7. What are the types of Reflex.
8. What do you mean by Cortical localizations ?
9. Mention the functions of Autonomic nervous system.
10. What are the Tracts of spinal cord

Part-B (16 Marks)

1. With neat diagram, explain the structure of kidney .
2. Explain the process involved in the formation of urine with neat diagram.
3. Explain the following :
 - (i) Define EEG.Explain the various forms of waves produced in it.
 - (ii) Briefly explain about the Urethra
4. Explain the functions of Neuron and process taking place in Synapses.
5. Explain about different types of lobes present in Brain .

UNIT V : MUSCLES AND JOINTS

Part-A (2 Marks)

1. Write the general characteristics of epithelial tissue.
2. Write the location and functions of the Transitional epithelium
3. What are types of Joints?
4. Define Muscle Tone.
5. Which joint is present in foot and toes.
6. Define Cartilage
7. Give some functions of muscle tissue.
8. State some characteristics of Synovial joints.
9. Write the functions of Hip joint .
10. What is the function of knee joint .

Part-B (16 Marks)

1. Explain about the types of joints in detail
2. Define muscle tissue . Explain the various functions and types of muscle tissue

3. Explain the following :
 - (i) Functions of ankle joint and radionular joint
 - (ii)Muscle tone and Fatigue
4. Explain about joints of foot and toes and elbow joint .
5. Define cartilage, mention its type. Give the description, function, and examples of each of them.

Course Faculty

HoD

