**[KZ 0811]** **AUGUST 2011** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time : Three Hours** **Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Name the types of circulation. Describe about the blood supply of heart.
2. What are the different stages of erythropoiesis. What the factors influencing erythropoiesis. Give the functions of blood.
3. Describe in detail the anatomy of the stomach. The composition and functions of gastric juices.

**II. Write notes on:** **(8 x 5 = 40)**

1. Describe with diagram lobes of the Lung.
2. Structure of Kidney.
3. Functions of liver.
4. Cardiac cycle.
5. How is urine formed?
6. Cranial nerves.
7. Structure and function of thyroid gland.
8. Lymph nodes.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Different types of muscles.
2. Functions of skin.
3. Types of white blood cells and its functions.
4. Composition and functions of cerebrospinal fluid.
5. Name the muscles of respiration.
6. Digestion of carbohydrates.
7. Give two uses of ECG.
8. Give two examples of ball and socket joint.
9. Name the lobes of cerebrum and its functions.
10. What are the types of cartilages?

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**[LB 0212]** **AUGUST 2012** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code : 802101***

**Time : Three hours** **Maximum : 100 marks**

**(180 Mins) Answer ALL questions in the same order.**

| **I. Elaborate on:** | **Pages (Max.)** | **Time (Max.)** | **Marks (Max.)** |
|---|---|---|---|
| 1. Define cell. Draw a diaphragm of cell structure and describe function and structure of cell. | 7 | 20 | 10 |
| 2. Describe in detail anatomy of pituitary gland, blood supply and functions. | 7 | 20 | 10 |
| 3. Describe in detail anatomy of pancreas, blood supply, enzymes secreted and functions. | 7 | 20 | 10 |
| **II. Write short notes on:** | | | |
| 1. Briefly describe types of epithelial tissue. | 4 | 10 | 5 |
| 2. Layers of the heart tissue. | 4 | 10 | 5 |
| 3. Causes of edema. | 4 | 10 | 5 |
| 4. Ventricle of brain. | 4 | 10 | 5 |
| 5. Muscles of respiration. | 4 | 10 | 5 |
| 6. Mechanism of swallowing. | 4 | 10 | 5 |
| 7. Functions of skin. | 4 | 10 | 5 |
| 8. Classify fractures and describe stages of healing. | 4 | 10 | 5 |
| **III. Short notes:** | | | |
| 1. List paired directional terms used in anatomy. | 2 | 4 | 3 |
| 2. Define neoplasm and briefly enumerate differences between benign and malignant tumours. | 2 | 4 | 3 |
| 3. Sensory receptors in skin. | 2 | 4 | 3 |
| 4. Structure of testes. | 2 | 4 | 3 |
| 5. Structure of atom. | 2 | 4 | 3 |
| 6. Modes of spread of tumours. | 2 | 4 | 3 |
| 7. Stroke volume. | 2 | 4 | 3 |
| 8. Factors affecting pulse rate. | 2 | 4 | 3 |
| 9. Extra ocular muscles of eye. | 2 | 4 | 3 |
| 10. Function of parathyroid glands. | 2 | 4 | 3 |

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**[LC 0212] FEBRUARY 2013 Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code : 802101***

**Time : Three hours** **Maximum : 100 marks**

**Answer ALL questions.**

**I. Elaborate on:** **(3X10=30)**

1. Describe in detail compensatory shock and uncompensated shock.
2. Describe structure of nerve and types of nerves.
3. Describe in detail simple reflux arc.

**II. Write short notes on:** **(8X5=40)**

1. Stages of blood clotting.
2. Factors affecting heart rate.
3. Placenta – structure and functions.
4. Nerve impulse.
5. Meninges.
6. Functions of cerebellum.
7. Parts of middle ear cavity.
8. Adrenal hormones.

**III. Short notes:** **(10X3=30)**

1. Types of bones.
2. Complications of atheroma.
3. Blood supply to the eye.
4. Pineal gland.
5. Functions of bones.
6. Synovial joint.
7. Types of muscle.
8. Mitosis.
9. Functions of retina.
10. Respiratory cycle.

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**[LD 0212]** **AUGUST 2013** **Sub.Code :2101**

**B.SC. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER – I HUMAN ANATOMY AND PHYSIOLOGY**

**Q.P. Code: 802101**

**Time: Three hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 X 10 = 30)**

1. Cell mitosis and differentiation of cells in different tissues.
2. Physiology of Digestion.
3. Anatomy of Circulatory System

**II. Write Notes on:** **(8 X 5 = 40)**

1. Describe Thoracic Cage.
2. Chromosomes and Genes.
3. Motor and Sensory Reflex pathways.
4. Healing of Bone Fractures.
5. Female Reproductive System.
6. Functions of Kidney.
7. Structure of Eye
8. Diagram with parts of Brain.

**III. Short Answers on:** **(10 X 3 = 30)**

1. Name the Endocrine Glands.
2. Pleural layer of Lungs.
3. Function of the Ear.
4. Functions of Red Blood Cells.
5. What are Lymphatics?.
6. Skull bones.
7. Bile secretion.
8. Mammary Glands.
9. Define Metabolism.
10. Parts of Knee Joint.

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**[LE 0212] FEBRUARY-2014 Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three hours** **Maximum: 100 marks**

**Answer ALL questions.**

**I. Elaborate on:** **(3X10=30)**

1. Describe in detail position heart in thorax and structure of heart wall.
2. Describe in detail structure of stomach and functions of stomach.
3. Describe in detail structure of neuron.

**II. Write short notes on:** **(8X5=40)**

1. Conducting system of the heart.
2. Describe parts of aorta.
3. Portal vein.
4. Thymus gland.
5. Cerebrospinal fluid.
6. Parts of brain stem.
7. Effects of sympathetic stimulation of cardio vascular system.
8. Extra ocular muscles of eye.

**III. Short notes:** **(10X3=30)**

1. Haemostasis.
2. Basal ganglia.
3. Thalamus.
4. Referred pain.
5. Auditory ossicles.
6. Control of respiration.
7. Structure of tooth.
8. Function of saliva.
9. Functions of small intestine.
10. Functions of skin.

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**[LF 0212]** **AUGUST 2014** **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER – I HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three hours** **Maximum : 100 Marks**

**Answer All questions**

**I Elaborate on:** **(3x10 =30)**

1. Describe the right atrium in detail.
2. Describe the Diaphragm in detail.
3. Describe the visceral surface of the liver in detail.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Bronchopulmonary segments.
2. Micturition.
3. Oesophagus.
4. Gluteus Maximus.
5. Median cubital vein.
6. Inguinal lymph nodes.
7. Defaecation.
8. Tongue.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Enumerate the extra occular muscles of eyeball.
2. Write briefly about thyroid gland.
3. Enumerate the branches of lumbar plexus.
4. Describe the lens.
5. Write briefly about bile duct.
6. Describe the ankle joint.
7. Describe the Transverse section of a bone.
8. Describe the tonsils.
9. Write the functions of autonomic nervous system.
10. Describe the pulmonary circulation.

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**[LG 0215]** **FEBRUARY 2015** **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I Elaborate on:** **(3 x 10 = 30)**

1. Describe the middle ear in detail.
2. Enumerate the endocrine glands and describe the pituitary gland in detail.
3. Describe the sulci, gyri and functional areas of superolateral surface of brain.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Testes.
2. Male urethra.
3. Functions of Gall bladder.
4. Aorta.
5. Medial longitudinal arch of foot.
6. Myasthenia Gravis.
7. Menstrual cycle.
8. Conducting system of heart.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Describe the Fallopian tube.
2. Write the contents of Intercostal space.
3. Describe the structure of a nephron.
4. Describe the gastric juice.
5. Write briefly about trachea.
6. Describe the lacrimal gland.
7. Describe the wrist joint.
8. Describe the structure of spermatozoa.
9. Describe the transverse section of a bone.
10. Write the attachments, nerve supply and action of Deltoid muscle.

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**[LH 0815]** **AUGUST 2015** **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Define cardiac cycle and explain in detail the various mechanical events of the cycle.
2. Define sarcomere and explain in detail the mechanism of skeletal muscle contraction.
3. Explain the three coatings of eye ball and write the ten layers of retina with suitable diagram.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Action potential.
2. Diffusion.
3. Diaphragm.
4. Urinary bladder.
5. Succus entericus.
6. Spinal cord and its cross section.
7. Parkinson's disease.
8. Structure of inner ear.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Defecation.
2. Diabetes insipidus.
3. Meninges.
4. Blood supply of liver.
5. Phantom limb.
6. Sino Atrial node.
7. Gap junctions.
8. Ulnar nerve.
9. Coverings of heart.
10. Milk ejection reflex.

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**[LI 0216]** FEBRUARY 2016 **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Explain in detail the course of Pyramidal tract with applied aspects.
2. Name the endocrine hormones of pancreas and explain in detail Diabetes Mellitus.
3. Explain in detail about the brachial plexus with applied anatomy.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Blood supply of heart.
2. Cerebrospinal fluid.
3. Micturition.
4. Types of joint with examples.
5. Pituitary gland with applied aspects.
6. Structure of liver.
7. Menstrual cycle.
8. Stages of erythropoiesis.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Lewis triple response.
2. Marey's law.
3. Para nasal sinuses.
4. Ventilation perfusion ratio.
5. Layers of intestine.
6. Presbyopia.
7. Hemophilia
8. Bladder trigone.
9. Broncho pulmonary segments.
10. Classification of muscle.

*******

**[LJ 0816]** AUGUST 2016 **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe in detail the anatomy of the right atrium.
2. Describe in detail the anatomy of the liver and the functions of the liver.
3. Describe in detail the anatomy, blood supply and functions of the pituitary gland.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Blood clotting.
2. Broncho pulmonary segments.
3. Brain stem.
4. Male reproductive system.
5. Placenta-structure and functions.
6. Portal vein.
7. Micturition.
8. Thymus gland.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Functions of the skin.
2. Enumerate the extra ocular muscles of the eyeball.
3. Functions of saliva.
4. Thalamus.
5. Functions of red blood cells.
6. Parathyroid gland.
7. Parts of the knee joint.
8. Meiosis.
9. Types of cartilages.
10. Complications of atheroma.

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**[LK 0217]** FEBRUARY 2017 **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe in detail the anatomy of the middle ear.
2. Describe in detail the structure and function of the neuron.
3. Enumerate the endocrine glands. Describe in detail the anatomy, blood supply and functions of the thyroid gland.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Testis.
2. Aorta.
3. Gall bladder.
4. Menstrual cycle.
5. Diaphragm.
6. Urinary bladder.
7. Deltoid muscle-attachments and applied anatomy.
8. Median longitudinal arch of foot.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Describe the fallopian tube.
2. Structure of the nephron.
3. Gastric juice.
4. Trachea.
5. Pineal gland.
6. Wrist joint.
7. Mitosis.
8. Factors affecting blood pressure.
9. Diabetes insipidus.
10. Types of muscle.

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**[LL 0817]** AUGUST 2017 **Sub.Code :2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. With the help of a neat labelled diagram, explain the structure of the animal cell.
2. List the various constituents of blood. What are the functions of blood?
3. Describe the process of digestion and absorption of carbohydrates in the body.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Internal features of the kidney.
2. Cardiac cycle.
3. Types of epithelial tissue.
4. Functions of skin.
5. Meninges.
6. Hormones of the posterior pituitary gland.
7. External features of the right lung.
8. Modes of contraceptives.

**III. Short Answers on:** **(10 x 3 = 30)**

1. List the differences between skeletal, smooth and cardiac muscle.
2. What is meant by blood pressure? What is the normal adult value of blood pressure?
3. List the enzymes secreted in pancreatic juice.
4. List the important ascending (sensory) pathways in the body
5. Contents of the intercostal space
6. List the coverings of the heart.
7. Define metaphysics.
8. Define systemic circulation.
9. Define tidal volume. Give its normal value.
10. What are villi?

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**[LM 0218]** FEBRUARY 2018 **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the process of formation of urine in the body.
2. Describe a synovial joint. Describe its types with examples.
3. Describe the external features of the heart. Add a note on the conducting system of the heart.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Bronchopulmonary segments.
2. Lung volumes.
3. Spleen.
4. Functions of sympathetic nervous system.
5. Intercostal space.
6. Thyroxine.
7. Diagram of eye.
8. Contraceptives.

**III. Short Answers on:** **(10 x 3 = 30)**

1. List the important descending (motor) pathways in the body.
2. What is meant by peristalsis?
3. What is meant by cardiac output? What is the formula used to calculate it?
4. List the waves seen in a normal ECG and the reason why it is produced?
5. Parts of the pharynx.
6. Define vital capacity.
7. Parts of stomach.
8. Components of juxta-glomerular apparatus.
9. List the layers of the Adrenal cortex and their secretions.
10. Myelination in the Central nervous system and Peripheral nervous system.

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**[LN 0818]** AUGUST 2018 **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the process of digestion and absorption of fats in the body.
2. Describe the Thoracic diaphragm.
3. Describe the menstrual cycle.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Cardiac cycle.
2. CSF circulation.
3. Hormones of the adrenal cortex.
4. Conducting system of the heart.
5. Intercostal muscles.
6. Nephron.
7. Functions of skin.
8. Bronchopulmonary segments.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Components of juxta-glomerular apparatus.
2. What is meant by cardiac output? What is the formula used to calculate it?
3. Functions of retina.
4. Stages in mitosis.
5. Define fertilization.
6. Coverings of the lung.
7. List the ear ossicles.
8. List three neuroglial cells and their functions.
9. Name the surgical methods of contraception.
10. Starling's law.

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**[LO 0219]** FEBRUARY 2019 **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the anatomy of lower gastrointestinal tract and its functions.
2. Describe the anatomy and functions of pituitary gland.
3. Describe the anatomy and functions of spleen.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Cell mitosis.
2. Blood and its contents.
3. Pulmonary circulation.
4. Trachea.
5. Lymph node.
6. Liver.
7. Salivary gland.
8. Lobes of brain.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Pericardial sinuses.
2. Constrictions of ureter.
3. Transpyloric plane.
4. Extent of spinal cord.
5. Content of spermatic cord.
6. Two cranial nerves in pons - Describe.
7. Pronation.
8. Types of Synovial joints.
9. Erb's palsy.
10. Contents of cubital fossa.

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**[LP 0819]** AUGUST 2019 **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the anatomy of lung and its functions.
2. Describe the anatomy and functions of kidney.
3. Describe the anatomy and functions of stomach.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Spermatogenesis.
2. Clotting of blood.
3. Pleura.
4. Tonsil.
5. Red blood cell.
6. Mammary gland.
7. Pericardium.
8. Interpeduncular fossa.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Surface marking of apex of heart.
2. Branches of superior mesenteric artery.
3. Transtubercular plane.
4. Meninges.
5. Falciform ligament.
6. 2 cranial nerves in medulla.
7. Epiphysis.
8. Examples of Ball and socket joint.
9. Winging of scapula.
10. Adductor canal.

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**[LQ 0220]** FEBRUARY 2020 **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the external features and functions of heart.
2. Describe the CSF circulation.
3. Describe the anatomy and functions of thyroid gland.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Skin.
2. Muscle.
3. Paranasal sinuses.
4. Oesophagus.
5. Spleen.
6. Uterus and its ligaments.
7. Adrenal gland.
8. Circle of willis.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Pleural recesses.
2. Drainage of right and left renal veins.
3. Carpal bones.
4. Central sulcus.
5. Arch of aorta.
6. 2 cranial nerves in midbrain.
7. Pivot joint with examples.
8. Foot drop.
9. Supination.
10. Boundaries of popliteal fossa.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0321]** **MARCH 2021** **Sub. Code: 2101**

**(AUGUST 2020 EXAM SESSION)**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR (Regulations 2010-2011)**

**PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

***Q.P. Code : 802101***

**Time: Three hours** **Answer ALL Questions** **Maximum: 100 Marks**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Female Reproductive System.
2. Classification of Joints with Example.
3. Draw and Label a neat diagram of Animal cell. Add a note on various Cell Organelles.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Cerebro-spinal Fluid.
2. Reflex arc.
3. List out the Location and Secretions of pituitary Gland.
4. Functions of Hypothalamus.
5. Bronchopulmonary segments.
6. Deltoid.
7. Knee Joint.
8. Defecation.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Define – Oogenesis.
2. Muscular Tissue.
3. Hemophilia.
4. Name the phases of Menstrual Cycle.
5. Intercostal space.
6. Optic nerve.
7. Taste Buds.
8. Write any 3 Gastric enzymes.
9. Openings of Diaphragm.
10. Functions of Ribosomes.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0422] APRIL 2022 Sub. Code: 2101**

**(FEBRUARY 2021 & AUGUST 2021 EXAM SESSIONS)**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**FIRST YEAR (Regulations 2010-2011)**

**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**

***Q.P NO. 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Define sarcomere and explain in detail the mechanism of skeletal muscle contraction.
2. Name the endocrine hormones of pancreas and explain in detail about Diabetes Mellitus.
3. Explain in detail about the brachial plexus with a neat diagram. Add a note on its applied anatomy.

**II. Write Notes on:** **(8 x 5 = 40)**

1. Primary active transport.
2. CSF circulation.
3. Hormones of the adrenal cortex.
4. Conducting system of the heart.
5. Intercostal muscles.
6. Basal ganglia
7. Thyroid function tests.
8. Spirometry.

**III. Short notes:** **(10X3=30)**

1. Steps of Haemostasis.
2. Draw and label the parts of a Nephron.
3. Dead space.
4. Referred pain.
5. Auditory ossicles.
6. Stages in mitosis.
7. Structure of a tooth.
8. Functions of saliva.
9. Types of WBC.
10. Functions of skin.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 1122]** **NOVEMBER 2022** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**
**FIRST YEAR (Regulation 2010-2011)**
**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**
***Q. P. Code: 802101***

**Time: Three hours** **Maximum : 100 Marks**

**Answer ALL Questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe in detail about the anatomy of Stomach and its functions.
2. Describe the Lobes of cerebrum and its functions.
3. Describe the parts of female reproductive system and its functions.

**II. Write notes on:** **(8 x 5 = 40)**

1. Thoracic cage.
2. Meninges.
3. Epithelial tissue.
4. Functions of Blood.
5. Diabetes Mellitus.
6. Malignant neoplasms.
7. Draw a neat diagram of Eyeball.
8. Cranial Nerves.

**III. Short answers on:** **(10 x 3 = 30)**

1. Peristalsis.
2. Functions of liver
3. Draw and Label the Left Lung.
4. Chambers of Heart.
5. Normal anatomical position.
6. Draw and Label the parts of Nephron.
7. Functions of the Tongue.
8. Parathyroid glands.
9. Parts of Reticulo-endothelial system.
10. Functions of Lysosome.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0423]** **APRIL 2023** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**
**FIRST YEAR (Regulations 2010-2011 & 2018-2019 onwards)**
**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**
***Q.P. Code:. 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the Sulci, Gyri and functional areas of superolateral surface of Brain.
2. Describe the parts of Alimentary system. Explain the process of digestion and absorption.
3. Enumerate the Endocrine glands. Describe in detail the anatomy, blood supply and functions of the Thyroid gland.

**II. Write short notes on:** **(8 x 5 = 40)**

1. Bronchopulmonary segments.
2. Urine formation.
3. Reflex arc.
4. Cerebellum.
5. Median cubital vein.
6. Inguinal lymph nodes.
7. Malignant tumours and their dissemination.
8. Coronary circulation.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Fallopian tube.
2. Contents of Intercostal space.
3. Meninges.
4. Pericardium.
5. Neuron.
6. Haversian system.
7. Red blood cells.
8. Describe the structure of spermatozoa.
9. Centre of Ossification
10. Prostate gland.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 1123]** **NOVEMBER 2023** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**
**FIRST YEAR (Regulations 2010-2011 & 2018-2019 onwards)**
**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**
***Q.P. Code: 802101***

**Time: Three Hours** **Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe in detail Anatomy of Kidney and add a note on Urine formation and Excretion.
2. Write the Chambers of Heart and add a note about Cardiac cycle.
3. Name the types of Circulation. Describe about the Blood Supply of Heart.

**II. Write short notes on:** **(8 x 5 = 40)**

1. Describe with diagram lobes of the Lung.
2. Synovial joint.
3. Functions of Liver.
4. Structure of Neuron.
5. Cerebrospinal fluid.
6. Cranial nerves.
7. Structure and function of Thyroid gland.
8. Lymphnode.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Types of Bones.
2. Complications of Atheroma.
3. Blood supply to the Stomach.
4. Vital capacity.
5. Parts of Long bone.
6. Mediastinum.
7. Layers of Skin.
8. Mitosis.
9. Functions of Retina.
10. Lobes of Cerebrum.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0424]** **APRIL 2024** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**
**FIRST YEAR (Regulations 2010-2011 & 2018-2019 onwards)**
**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**
***Q.P. Code: 802101***

**Time: Three Hours** **Answer All questions** **Maximum : 100 Marks**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Classify Bones. Explain in detail about Long bone under the following headings: (a) Parts (b) Blood supply (c) Applied Anatomy.
2. Explain in detail the parts of Male Reproductive System and its functions.
3. Describe the structure and functions of Eye ball with suitable diagrams. Add a note on its Applied Anatomy.

**II. Write short notes on:** **(8 x 5 = 40)**

1. Types of Epithelial tissue.
2. Formation of Urine.
3. Physiology of Oedema.
4. Ventricles of the Brain.
5. Lung volumes and capacities.
6. Mechanism of Swallowing.
7. Liver function tests.
8. Classify fractures.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Paranasal air sinuses.
2. Constrictions of Ureter.
3. Transpyloric plane.
4. Meninges.
5. Fertilization.
6. Peristalsis.
7. Reflex arc.
8. Functions of Ear.
9. Functions of Mitochondria.
10. Essential hypertension.

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**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY**

**[AHS 1125]** **NOVEMBER 2025** **Sub. Code: 2101**

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**
**FIRST YEAR (Regulations 2010-2011& 2018-2019 onwards)**
**PAPER I – HUMAN ANATOMY & PHYSIOLOGY**
***Q.P. Code: 802101***

**Time: Three Hours** **Answer All questions** **Maximum : 100 Marks**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Name the types of circulation. Describe about the blood supply of heart.
2. What are the different stages of erythropoiesis? What the factors influencing erythropoiesis. Give the functions of blood.
3. Describe the Diaphragm in detail.

**II. Write short notes on:** **(8 x 5 = 40)**

1. Describe with diagram lobes of the Lung.
2. Structure of Kidney.
3. Functions of liver.
4. Cardiac cycle.
5. How is urine formed?
6. Cranial nerves.
7. Structure and function of thyroid gland.
8. Lymph nodes.

**III. Short Answers on:** **(10 x 3 = 30)**

1. Different types of muscles.
2. Functions of skin.
3. Types of white blood cells and its functions.
4. Composition and functions of cerebrospinal fluid.
5. Name the muscles of respiration.
6. Digestion of carbohydrates.
7. Give two uses of ECG.
8. Give two examples of ball and socket joint.
9. Name the lobes of cerebrum and its functions.
10. What are the types of cartilages?

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