

[LH 0815]

AUGUST 2015

Sub.Code :1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the diagram of a human cell and name the parts, briefly describe them.
2. Discuss the systemic circulation of blood.
3. Briefly discuss the parts of central nervous system with diagrams if needed.

II. Write Notes on:

(8 x 5 = 40)

1. Describe the layers of skin and the functions of skin.
2. Briefly describe the parts of the colon and name the functions.
3. What is Hemoglobin and describe the importance of it in Radiotherapy?
4. Describe the different epithelial tissues.
5. What are lymph nodes and discuss their functions?
6. Describe the anatomical parts of lung and name 3 diseases affecting the lung.
7. Name the skull bones and the joints involving the skull bones.
8. Draw the diagram of the urinary system and discuss the mechanism of urine formation.

III. Short Answers on:

(10 x 3 = 30)

1. Name 3 cranial nerves with their functions.
2. Cartilaginous joints.
3. Components of blood.
4. Name the smallest bones in the body and their functions.
5. Name the enzymes used in protein digestion.
6. Dysfunctional uterine bleeding.
7. What is cerebrospinal fluid? Describe its function.
8. Discuss the process of absorption in the large intestine.
9. What are the contents of the orbital cavity?
10. Name the different parts of the abdomen.

[LI 0216]

FEBRUARY 2016

Sub.Code :1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the diagram of the digestive tract name the parts and briefly describe.
2. Classify tissues and briefly describe their function.
3. Describe the components of blood and briefly discuss their functions.

II. Write Notes on:

(8 x 5 = 40)

1. Discuss the functions of the skin.
2. Structure of DNA.
3. Ball and socket joint.
4. What blood cells and their functions?
5. Name the parts of the internal structure of the kidney and discuss the function.
6. Describe the pelvic bone.
7. Discuss the different parts of breast tissue.
8. Where is the pituitary gland situated, describe its functions?

III. Short Answers on:

(10 x 3 = 30)

1. What is diabetes? Which organ secretes insulin?
2. Name 3 diseases affecting the lungs.
3. Spermatozoa.
4. Describe the ventricles of the brain.
5. Where is thymus situated? What is the function of thymus?
6. What are the functions of hypothalamus?
7. Golgi apparatus.
8. Autonomic nervous system.
9. Digestion of fat.
10. Describe the anatomy of Nasopharynx.

[LJ 0816]

AUGUST 2016

Sub.Code :1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the external feature and chambers of the heart.
2. Describe the composition and function of the blood
3. Define joint. Explain in detail about the types of joints with suitable example.

II. Write Notes on:

(8 x 5 = 40)

1. Structure of the spermatozoa.
2. Hormones secreted by pituitary.
3. L.S of kidney.
4. Subdivision and lobes of the brain.
5. Reflex arc.
6. Ovulation.
7. Dwarfism.
8. Referred pain.

III. Short Answers on:

(10 x 3 = 30)

1. Haemophilia.
2. Pleura.
3. Dyspnoea.
4. SA node.
5. Bleeding time.
6. Function of saliva.
7. Haversian system.
8. Types of muscles.
9. What is diaphysis and epiphysis?
10. Phases of menstruation.

[LK 0217]

FEBRUARY 2017

Sub.Code :1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. What are the coverings of the brain? Explain in detail about the parts, poles, lobes and subdivision of the brain.
2. Name the endocrine organs in our body. Mention their locations. Write in detail about the hormones secreted by the pituitary gland.
3. Define blood pressure. What is the normal blood pressure? Describe the regulation of blood pressure.

II. Write Notes on:

(8 x 5 = 40)

1. Structure of ova.
2. Primary and secondary centres of bone.
3. Diaphragm.
4. Enumerate the organs of reproductive system and mention their functions.
5. Function of haemoglobin.
6. Mention types of hypoxia with suitable example.
7. Juxtaglomerular apparatus.
8. Draw the structure of nephron and explain the formation of urine.

III. Short Answers on:

(10 x 3 = 30)

1. Write the location and secretion of pancreas.
2. Ventricles of heart.
3. Types of cartilage.
4. Papillae of tongue.
5. Peritoneum.
6. What is aplastic anaemia?
7. Name the muscles of respiration.
8. What is vital capacity?
9. Peristalsis.
10. Hypothyroidism.

[LL 0817]

AUGUST 2017

Sub.Code :1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Define Blood Pressure. Mention factors affecting Blood pressure and explain in detail about regulation of Blood pressure.
2. Draw a neat labeled diagram of cell and explain the functions of cell organelles.
3. Explain the movement of food in alimentary tract and discuss about digestion of food in small and large intestine.

II. Write Notes on:

(8 x 5 = 40)

1. Write a short note on urine formation.
2. Describe the structure of an artery and a vein with diagram.
3. Explain about structure and lobes of lung.
4. Structure of Eyes.
5. Functions of cerebro spinal fluid.
6. List out different blood groups and Rh factor importance in blood grouping.
7. Write in brief about structure of heart.
8. Synovial joints.

III. Short Answers on:

(10 x 3 = 30)

1. Functions of platelets.
2. Erythroblastosisfetalis.
3. Functions of Bile.
4. Clavicle.
5. Name the parts of stomach.
6. List out plasma proteins.
7. Name the lobes of cerebrum.
8. Name the area of brain where cardiovascular centre is situated?
9. Cartilaginous joints.
10. Define anatomical position.

[LM 0218]

FEBRUARY 2018

Sub. Code: 1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the detail anatomy of respiratory system with diagram. Explain about nervous control of respiration.
2. Classify joints. Explain about different types of synovial joints with examples.
3. Mention the different parts of urinary system and explain in detail about process of urine formation.

II. Write Notes on:

(8 x 5 = 40)

1. Functions of Liver.
2. Explain in detail the Conduction system of Heart.
3. What are Lymph nodes and discuss their functions?
4. Structure and functions of skin.
5. List out the hormones of pituitary. Explain any two.
6. Explain events in menstrual cycle.
7. Classify connective tissue.
8. Write down the different components of blood and write about functions of RBC?

III. Short Answers on:

(10 x 3 = 30)

1. Difference between benign and malignant tumors.
2. What is pleura? Functions of pleura.
3. Broncho Pulmonary Segments.
4. What is normal Blood pressure? Name the instrument used to measure it.
5. Name the different parts of Gastro intestinal system.
6. Name three main parts of cell with their function.
7. What is fertilization?
8. Define Mitosis, Meiosis.
9. Functions of Saliva.
10. Importance of Vitamin-B12.

[LN 0818]

AUGUST 2018

Sub. Code: 1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Enumerate the endocrine glands. Write in detail of pituitary gland anatomy and functions.
2. Discuss in detail the pulmonary and systemic circulation.
3. List out various constituents of blood. Explain in detail about WBC.

II. Write Notes on:

(8 x 5 = 40)

1. List out plasma proteins? Explain difference between serum and plasma.
2. Heart sounds.
3. Menstrual cycle.
4. Structure of middle ear and its functions.
5. Erythropoiesis.
6. Types of bones and its functions.
7. Functions of adrenal medulla.
8. Difference between artery and vein.

III. Short Answers on:

(10 x 3 = 30)

1. Endocrine functions of testis.
2. Layers of skin.
3. Dyspnea and Hypoxia.
4. Muscles of Respiration.
5. Steps of urine formation.
6. Scapula.
7. Renal artery.
8. Mitochondria.
9. Rh factor.
10. Oxytocin.

[LO 0219]

FEBRUARY 2019

Sub. Code: 1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the parts of the reproductive system in females. Write in detail about the uterus under the following sub headings: (a) External features (b) Supports of uterus (c) Blood Supply (d) Clinical Anatomy.
2. Classify the types of bones. Write in detail about the long bones of the lower limb.
3. Name the various endocrine glands and their secretions in the body. Write in detail about the hormones secreted by the thyroid gland and their functions.

II. Write Notes on:

(8 x 5 = 40)

1. Spleen.
2. Lateral wall of nose.
3. External features of heart.
4. Histology of Liver.
5. Gastric glands and their functions.
6. Structure and functions of nephron.
7. Cardiac cycle.
8. Cell division.

III. Short Answers on:

(10 x 3 = 30)

1. Name the ventricles of brain.
2. Name the parts of the pituitary gland.
3. Give the blood supply of Kidneys.
4. Name the parts of a typical Lumbar Vertebra.
5. Name any three differences between small intestine and large intestine.
6. Name any three functions of skin.
7. Name the hormones secreted by Thyroid and Para thyroid gland.
8. Write about the functions of pancreas.
9. Reflex Arc.
10. Surface marking of Arch of Aorta.

[LP 0819]

AUGUST 2019

Sub. Code: 1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the parts of the Gastro intestinal system. Write in detail about the stomach under the following sub headings: a) External features b) Histology c) Blood Supply d) Clinical Anatomy.
2. Describe in detail about the heart under the following sub headings: a) External features b) Interior of heart c) Blood supply d) Clinical Anatomy
3. Write in detail about the spinal cord and the ascending and descending pathways.

II. Write Notes on:

(8 x 5 = 40)

1. Histology of bone.
2. Structure of eyeball.
3. Parts of brain.
4. Muscles of tongue.
5. Glomerular filtration and juxta glomerular apparatus.
6. Respiratory movements.
7. Functions of ovary.
8. Deglutition.

III. Short Answers on:

(10 x 3 = 30)

1. Name the parts of femur bone.
2. Name the types of joint.
3. Give the blood supply of liver.
4. Name the parts of the male reproductive system.
5. Surface marking of lungs.
6. Composition of blood.
7. Spermatogenesis.
8. Name the types of gland in the skin.
9. Enzymes of pancreas.
10. Parts of the uterus.

[LQ 0220]

FEBRUARY 2020

Sub. Code: 1906

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

FIRST YEAR

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code: 801906

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the parts of the urinary system. Write in detail about the kidneys under the following sub headings: a) External features b) relations c) coverings of kidney d) Blood Supply e) Clinical Anatomy.
2. Enumerate the parts of the nervous system and the brain. Write in detail about the sulci and gyri and functional areas of the cerebral cortex.
3. Write in detail about the structure and properties of cardiac muscle. Also describe in detail about the conducting system of heart and the heart sounds.

II. Write Notes on:

(8 x 5 = 40)

1. Structure of Cell.
2. Breast.
3. Ventricles of the heart.
4. Histology of skeletal muscle.
5. Acid – base balance.
6. Types of epithelial tissue and glands.
7. Blood groups and transfusion reactions.
8. Effect of exercise on lung volumes and the pulmonary functional tests.

III. Short Answers on:

(10 x 3 = 30)

1. Name the parts of the adrenal gland.
2. Name the parts of a typical cervical Vertebra.
3. Name the parts of gall bladder.
4. Surface marking of heart.
5. Name the muscles of pharynx.
6. Name the hormones responsible for lactation.
7. Structure and function of haemoglobin.
8. Composition of Cerebro Spinal Fluid.
9. Name the hormones secreted by Hypothalamus.
10. Name any three functions of liver.

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

[AHS 0321]

MARCH 2021

Sub. Code: 1906

(AUGUST 2020 EXAM SESSION)

B.Sc. RADIOTHERAPY TECHNOLOGY

FIRST YEAR (Regulations 2014-2015)

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P. Code : 801906

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Define joint. Discuss in detail about the various types of joints with suitable example.
2. Define blood pressure. What is the value of normal blood pressure? Describe the regulation of blood pressure.
3. Describe the structure of testis. Name the hormones secreted by testis. Describe the functions of testosterone.

II. Write Notes on:

(8 x 5 = 40)

1. Write about location and external features of gall bladder.
2. Briefly write about ulna bone with a diagram.
3. Structure and functions of haemoglobin.
4. Function of small intestine.
5. Describe the different parts of breast tissue.
6. Conducting system of the heart.
7. Write about structure and lobes of lung.
8. Functions of plasma proteins.

III. Short Answers on:

(10 x 3 = 30)

1. Clavicle anatomy.
2. Bleeding time.
3. List out the names of wrist bones.
4. Name the different quadrants of the abdomen.
5. List out the nerves supplying the upper limb.
6. Functions of saliva.
7. Define tidal volume.
8. Name the layers of a blood vessel.
9. Name any three cranial nerves with its function.
10. Mention the steps in urine formation.

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

[AHS 0422]

APRIL 2022

Sub. Code: 1906

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

B.Sc. RADIOTHERAPY TECHNOLOGY

FIRST YEAR (Regulations 2014-2015)

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY

Q.P NO. 801906

Time: Three Hours

Answer All questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Write in detail about the mammary glands. Add a note on the hormones involved in menstruation, pregnancy and lactation.
2. Name the parts of the male reproductive system. Explain in about the endocrine functions of testes. Add a note on male urethra.
3. Explain in detail about the following:
a) Thoracic cage b) Diaphragm c) Mediastinum.

II. Write notes on:

(8 x 5 = 40)

1. Location and function of ovaries.
2. Reflex arc.
3. Structure and functions of fallopian tube.
4. Typical thoracic vertebrae.
5. Digestion of carbohydrates.
6. Biliary tract.
7. Muscles of respiration.
8. Ventricular system.

III. Short answers on:

(10 x 3 = 30)

1. Clavicle.
2. Tibia and Fibula.
3. Regions of the abdomen.
4. Epithelial tissue.
5. Red and white blood corpuscles.
6. Mitosis and meiosis.
7. Arteries and veins.
8. Divisions of arch of aorta.
9. Location of kidney.
10. Blood supply of liver.

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

[AHS 1122]

NOVEMBER 2022

Sub. Code: 1906

**B.Sc. RADIOTHERAPY TECHNOLOGY
FIRST YEAR (Regulation 2014-2015)
PAPER I – HUMAN ANATOMY AND PHYSIOLOGY**

Q. P. Code: 801906

Time: Three hours

Maximum : 100 Marks

Answer ALL Questions

I. Elaborate on:

(3 x 10 = 30)

1. Classify Joints. Describe the different types of synovial joints with suitable examples.
2. Describe the Anatomy of Heart with a neat diagram.
3. Write in detail about the structure of Kidney. Add a note on mechanism of urine formation.

II. Write notes on:

(8 x 5 = 40)

1. CO₂ transport.
2. Temporary methods of contraception.
3. Describe the structure of a long bone.
4. External features of the right lung.
5. Exocrine part of pancreas.
6. Functions of Thyroid hormones.
7. Circulation of CSF and its functions.
8. Anatomy of skin.

III. Short answers on:

(10 x 3 = 30)

1. Define coronal plane.
2. Name the openings of the diaphragm with their corresponding vertebral levels.
3. What is mitosis?
4. Name the parts of the small intestine.
5. Name the coverings of the brain.
6. Reflex arc.
7. What is Tidal volume? Give its normal value.
8. Name two common diseases affecting bones.
9. List the granulocytes.
10. Name the ear ossicles.
