

[KZ 0811]

AUGUST 2011

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the Structure of the heart and its blood supply.
2. Composition of blood and its functions.
3. Classification of joints. Describe in detail about synovial joint.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Anatomical planes of the body.
2. Functions of bile.
3. Nephron.
4. Micturition reflex.
5. Menstrual cycle.
6. Thyroid gland.
7. Types of nerves.
8. Functions of Cerebellum.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Hormones secreted by the anterior pituitary.
2. Jaundice.
3. Name parts of typical vertebra.
4. Name major arteries of the upper limb.
5. Diaphragm.
6. Acromegaly.
7. Cardiopulmonary resuscitation.
8. Types of bones.
9. Blood brain barrier.
10. Erythrocyte sedimentation rate.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

**I. Elaborate on:**

**Pages Time Marks  
(Max.) (Max.) (Max.)**

- |  |   |         |    |
|--|---|---------|----|
| 1. Classify the joints and describe about the synovial joints. | 7 | 20 min. | 10 |
| 2. Describe the structure of stomach and its functions.        | 7 | 20 min. | 10 |
| 3. Describe the different types of circulations.               | 7 | 20 min. | 10 |

**II. Write notes on:**

- |                                   |   |         |   |
|-----------------------------------|---|---------|---|
| 1. Anatomical planes of the body. | 4 | 10 min. | 5 |
| 2. Fertilization.                 | 4 | 10 min. | 5 |
| 3. Cardiac cycle.                 | 4 | 10 min. | 5 |
| 4. Membranes.                     | 4 | 10 min. | 5 |
| 5. Spinal cord.                   | 4 | 10 min. | 5 |
| 6. Islets of Langerhans.          | 4 | 10 min. | 5 |
| 7. Tissues.                       | 4 | 10 min. | 5 |
| 8. Shock.                         | 4 | 10 min. | 5 |

**III. Short Answers on:**

- |                             |   |        |   |
|-----------------------------|---|--------|---|
| 1. Classification of Bones. | 2 | 4 min. | 3 |
| 2. Types of injuries.       | 2 | 4 min. | 3 |
| 3. Types of Respiration.    | 2 | 4 min. | 3 |
| 4. Appendicular Skeleton.   | 2 | 4 min. | 3 |
| 5. Functions of Lymph.      | 2 | 4 min. | 3 |
| 6. Wound Healing.           | 2 | 4 min. | 3 |
| 7. Meninges.                | 2 | 4 min. | 3 |
| 8. Myxodema.                | 2 | 4 min. | 3 |
| 9. Olfactory path way.      | 2 | 4 min. | 3 |
| 10. Cystitis.               | 2 | 4 min. | 3 |

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[LC 0212]

FEBRUARY 2013

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe structure of the pituitary gland, hormones secreted by the anterior pituitary and their functions.
2. Elaborate on the structure of the kidney and its functions.
3. Composition of blood and its functions.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Anatomy of breast.
2. Lung collapse.
3. CSF circulation.
4. Physiology of swallowing.
5. Portal venous system.
6. Cardiac valves.
7. Lymphatic organs and tissues.
8. Optic pathway.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Name the cranial nerves.
2. Functions of adrenal medulla.
3. General structure of long bone.
4. Parts of male urethra.
5. Name the bones of the face.
6. Aneurysms.
7. Lacrimal gland.
8. Meninges.
9. Glial cells.
10. Gall bladder.

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[LD 0212]

AUGUST 2013

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the anatomy of the lungs and functions of the respiratory system. A
2. Boundries and contents of the inguinal canal. Write notes on inguinal hernia.
3. Functional anatomy and functions of the digestive system.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Visual pathway.
2. Juxta glomerular apparatus.
3. Contraceptives.
4. Circle of willis.
5. Schilling test.
6. Trendlenburg sign.
7. Anticoagulants.
8. Fourth ventricle.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Tests for hearing.
2. Hyaline cartilage.
3. Mechanism of contraction of muscle.
4. Quadriceps femoris.
5. Packed cell volume.
6. Adrenal gland.
7. Absolute eosinophil count.
8. Transport of respiratory gases.
9. Tests for ovulation.
10. Popliteal fossa.

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[LE 0212]

FEBRUARY 2014

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Write in detail about heart and its blood supply.
2. Write in detail about uterus and physiology of ovary.
3. Write in detail about respiratory system parts and its functions.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Formation of blood?
2. Disorders of blood pressure.
3. Vascular supply of upper limb.
4. Anatomy of Portal vein.
5. Parts of urinary bladder and its function.
6. How Kidney function in disease.
7. Define functions of cerebellum.
8. What are the Hormones from adrenal gland?

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Name the lymph nodes in inguinal region.
2. Supports of uterus.
3. Types of nerve fibres.
4. Name the ventricles in brain.
5. Functions of liver.
6. Define anemia.
7. What is blood brain barrier?
8. Mention hormones of thyroid gland.
9. Define neoplasia.
10. Stages of wound healing.

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[LF 0212]

AUGUST 2014

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the anatomy and functions of stomach.
2. What are the Endocrine glands? Explain the hormones secreted the pituitary gland.
3. Describe the vertebral column in detail.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Nephron.
2. Degultition.
3. Intercostal space.
4. Circle of willis.
5. Cardiac cycle.
6. Fertilization.
7. Physiology of taste.
8. Mechanism of Respiration.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Mastication.
2. Pancreas.
3. Receptors.
4. Coagulation of blood.
5. Pluera.
6. Cerebro spinal fluid.
7. Sutures.
8. Epididymis.
9. Edema.
10. Mammary gland.

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[LG 0215]

FEBRUARY 2015

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

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

1. Describe the Lymphatic system in detail with special mention about the thoracic duct.
2. Describe the structure and functions of a cell.
3. Describe Nephron, formation of urine and physiology of micturition.

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

1. Types of Circulation and Explain portal circulation.
2. Diaphragm.
3. Arches of foot.
4. Cardiac Muscles.
5. Supra renal gland.
6. Menstrual cycle.
7. Anatomy of ear and physiology of hearing.
8. Different types of tumors and their spread.

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

1. Plueral effusion.
2. Benign hypertrophy of prostate.
3. Vulva.
4. Spinal cord.
5. Absorption.
6. Urinary Bladder.
7. Blood Grouping and the importance.
8. Meningitis.
9. Fracture of bones.
10. Refractory errors.

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[LH 0215]

AUGUST 2015

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the structure of skeletal muscle and physiology of muscle contraction.
2. What are endocrine glands and describe in detail about the hormones secreted by pituitary gland?
3. What is diabetes and explain in detail about the types and its pathological condition?

**II. Write notes on:**

**(8 x 5 = 40)**

1. Describe nephron.
2. Placenta.
3. Mechanism of respiration.
4. Sickle cell anaemia.
5. Process of blood coagulation.
6. Describe the structure and functions of cerebellum.
7. Myocardial infraction and its features.
8. Explain CSF and its functions.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Draw a neat labeled diagram of a neuron.
2. Trendlenburg sign.
3. Stages of wound healing.
4. Filum terminale.
5. Thalesemia.
6. Define appendicitis.
7. What is hernia? Name one example.
8. Name the vitamin deficiency for rickets and give its symptoms.
9. What is aneurysm and give on example?
10. Name the bones of upper limb.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**  
**FIRST YEAR**  
**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY**  
**RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer All questions.**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the cubital fossa under the following headings – Boundaries, contents and applied anatomy.
2. Classify the joints with an example and a suitable diagram.
3. Define anaemia, its classification, symptoms and pathophysiology.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Bronchopulmonary segments.
2. Portal circulation.
3. Lymphoedema.
4. Electrocardiogram (ECG).
5. Cardiomegaly in X-ray view.
6. Describe the structure and contents of uterus.
7. Polycystic kidney.
8. Neuromuscular junction.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Name the meninges.
2. Name two types of tumour with one example for each.
3. Name the procedure for the radiological view of kidney and breast.
4. Name the hormones and enzymes secreted by pancreas.
5. Draw a neat labeled diagram of a Pacinian corpuscle.
6. Name the lymphatic organs.
7. Name the pigments of liver.
8. Name the parts of scapula.
9. Down's syndrome.
10. What is Postero-Anterior view in radiology?

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[LJ 0816]

AUGUST 2016

Sub.Code :1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer All questions.**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the structure of stomach and its functions.
2. Define anaemia, its classification, symptoms and pathophysiology.
3. Discuss the mechanism of Blood coagulation in detail.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Gluteus Maximus.
2. Blood supply of brain.
3. Functions of placenta.
4. Functions of cerebellum.
5. Surfactant.
6. Jaundice.
7. Importance of Radio imaging of mammary gland.
8. Vomiting.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Deltoid muscle.
2. Types of bones.
3. Surface Anatomy of heart.
4. Mention any three functions of saliva.
5. Functions of liver.
6. Myopia and its correction.
7. Differences between Type I and Type II Diabetes Mellitus.
8. Vermiform appendix.
9. Write any two non- respiratory functions of lungs.
10. Define neoplasia.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /  
RADIO DIAGNOSIS TECHNOLOGY  
FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer All questions.**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the Cubital fossa under the following headings– Boundaries, contents and applied anatomy.
2. Describe structure of the pituitary gland, hormones secreted by the anterior pituitary gland. Discuss the functions and regulation of Growth hormone secretion in detail.
3. What is Diabetes Mellitus and explain in detail about the types and its etiopathogenesis?

**II. Write notes on:**

**(8 x 5 = 40)**

1. Boundaries and contents of inguinal canal.
2. Pectoralis Major.
3. Bronchopulmonary segments.
4. Structure and functions of a cell.
5. Contraception in females.
6. Rh incompatibility.
7. Oedema and its types.
8. Composition and Functions of CSF.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Parts of scapula.
2. Typical intercostal nerve.
3. Mention any two Anticoagulants and its functions.
4. Hypothyroidism in adults.
5. Write any three factors that affect blood pressure.
6. Microcytic hypochromic anemia.
7. Muscles of forearm.
8. Erb's paralysis.
9. Down's syndrome.
10. Proteolytic enzymes.

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[LL 0817]

AUGUST 2017

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

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

1. With a neat diagram, explain arch of Aorta and blood supply to brain in detail.
2. Explain female reproductive system in detail.
3. Enumerate parts of respiratory system and explain lungs in detail.

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

1. Explain synovial joint and give examples.
2. Cerebrospinal fluid – production and function.
3. Explain meninges and its function.
4. Adrenal Gland.
5. Oesophagus.
6. Explain spleen in detail.
7. Para nasal sinuses.
8. Cervical vertebrae.

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

1. Residual volume of lung.
2. Breathing mechanism.
3. Bones of Hip joint.
4. Name bones of wrist joints.
5. Write shortly on 'intussusception'.
6. Pancreatitis.
7. Parts of large intestine.
8. Three functions of liver.
9. Layers of blood vessels.
10. Name the sinuses of brain.

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[LM 0218]

FEBRUARY 2018

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. With a neat diagram, explain bones of skull in detail.
2. Explain heart and its function in detail.
3. Elaborate the parts of brain and function of lobes in detail.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Anatomy of kidney.
2. Parts of liver.
3. Gall bladder.
4. Male reproductive organ.
5. Conducting system of heart.
6. Pulmonary circulation.
7. Lumbar vertebrae.
8. Circle of Willis.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Deep venous thrombosis.
2. Causes of Heart failure.
3. What is Atrial Septal Defect?
4. Name cranial nerves.
5. Hormones of anterior pituitary.
6. Hydronephrosis.
7. Muscles of breathing.
8. Bones of pelvis.
9. Importance of cardiac muscles.
10. Elbow joint.

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[LN 0818]

AUGUST 2018

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Draw the parts of Lungs. Write the mechanism of Respiration.
2. Draw the C/S of Heart and Label. Describe the cardiac cycle.
3. Write the types of Joints with example. Describe Shoulder joint with diagram.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Cerebro Spinal Fluid.
2. Write about the structure of Breast.
3. Draw and Label C/S of Skin and Write the Function of Skin.
4. Draw the structure in Female and Male Pelvis and Label.
5. Explain Lymph Node.
6. Explain Hypothalamus and its functions.
7. Describe Mandible.
8. Describe Testes.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Draw a Neuron and name the parts.
2. Draw C/O Eye ball and Label.
3. Name the Ossicles of Ear.
4. What are Muscles of Respiration?
5. What is a Trigone?
6. Write the types of Muscles with example.
7. Draw and Label a Typical Rib.
8. What are the types of Circulation?
9. What are Axial and Appendicular Skeleton?
10. Name the parts of Male Urethra.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Name the Endocrine glands. Describe the pituitary hormones.
2. Draw the C/S of Kidney and label. Describe the Formulation of Urine.
3. Draw the parts of Alimentary canal. Describe the digestive juices.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Name the bones, sutures of skull with diagram and Write the functions of Skull.
2. Write notes on Appendix.
3. Describe the Arch of Aorta and Branches.
4. Explain Hypothalamus and its functions.
5. What are the structure and functions of Liver?
6. Describe Pharynx.
7. Describe the Conducting system of Heart.
8. Explain about Circle of Willis.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Write the boundaries of Thoracic Cavity.
2. Describe Prostate.
3. Draw and Label the Lobes of Brain.
4. Write the components of synovial joint.
5. Write about the Tarsal bones.
6. What is Vocal Cords?
7. What are internal and External Respiration?
8. Write about the composition of Blood.
9. Describe Myocardium.
10. Describe Fallopian Tubes.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Enumerate the parts of digestive system? Add a note on external features of stomach?
2. Explain the steps involved in urine formation?
3. Draw and label the parts of Respiratory tract. Add a note on lungs?

**II. Write notes on:**

**(8 x 5 = 40)**

1. Erythroblastosis fetalis.
2. Time for ovulation.
3. Anticoagulants.
4. Functions of lymph.
5. Nephron.
6. Cretinism.
7. Functions of saliva.
8. Juxta glomerular apparatus.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Hormones of posterior pituitary gland.
2. Physiological jaundice.
3. Types of tumor.
4. Function of thyroid hormone.
5. Name some neuromuscular blockers.
6. Any two functions of CSF.
7. Types of injuries.
8. Methods of contraception.
9. List the Lobes of cerebrum.
10. Types of fractures.

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**B.Sc. RADIOLOGY IMAGING TECHNOLOGY****FIRST YEAR****PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY***Q.P. Code: 801801***Time: Three Hours****Maximum: 100 Marks****Answer all questions****I. Elaborate on:****(3 x 10 = 30)**

1. Draw the C/S of Heart. Describe the conducting system of heart with cardiac cycle.
2. What is Diabetes Mellitus? Describe its etiology, Pathophysiology and treatment?
3. Describe the steps involved in Excitation – contraction coupling?

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

1. A typical Lumbar Vertebrae.
2. Para Nasal Sinuses.
3. Describe Cerebellum.
4. Draw a cell and Label. What are Golgi apparatus?
5. Explain Nephron with diagram.
6. Describe the classification of joints with example.
7. Describe Spleen.
8. Name the parts of Female Reproductive system and their functions.

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

1. What are the anatomical regions of Abdomen? What are Rugae and where are they found?
2. What is Myocardium?
3. Types of jaundice.
4. Draw Biliary tree and Label.
5. What are the types of bones? Give example.
6. Name the glands in Endocrine glands.
7. What are Axial and Appendicular skeleton?
8. What are the Layers of Alimentary Canal?
9. What is Omentum?
10. What are the Intercostal Muscles?

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

[AHS 0321]

**MARCH 2021**

**Sub. Code: 1801**

**(AUGUST 2020 EXAM SESSION)**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**FIRST YEAR (Regulations 2010-2011 & 2014-2015)**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY AND PATHOLOGY  
RELEVANT TO RADIOLOGY**

***Q.P. Code : 801801***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Name the hormones secreted by anterior pituitary gland. Explain in detail about Growth hormone?
2. What is Diabetes Mellitus? Describe its etiology, Pathophysiology and treatment?
3. Describe the steps involved in Excitation – contraction coupling?

**II. Write notes on:**

**(8 x 5 = 40)**

1. Visual pathway.
2. Anatomical planes of body.
3. Boundaries of Cubital fossa and its clinical significance.
4. Tetany.
5. ABO system.
6. Pharyngeal phase of deglutition.
7. Tuberculosis.
8. Edema and its types.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Erb's paralysis.
2. Name contents of inguinal canal.
3. Any three Functions of placenta.
4. Name the types of joints.
5. Blood brain barrier.
6. Types of jaundice.
7. Name the waves of ECG.
8. Name some anticoagulants.
9. Pleural effusion.
10. Myopia and its correction.

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

[AHS 0422]

**APRIL 2022**

**Sub. Code: 1801**

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

**B.Sc. RADIOLOGY AND IMAGING TECHNOLOGY**

**FIRST YEAR (Regulation 2010-2011 & 2014-2015)**

**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY**

**RELEVANT TO RADIOLOGY**

*Q.P. Code: 801801*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

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

1. Classification of joints. Describe in detail about synovial joint.
2. Elaborate on the structure of the kidney and its functions.
3. Define anemia, its classification, symptoms and pathophysiology.

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

1. Paranasal sinuses.
2. Functions of placenta.
3. Bronchopulmonary segments.
4. Structure and functions of a cell.
5. Functions of cerebellum.
6. Explain prostate and seminal vesicles in detail.
7. Conducting system of heart.
8. Lumbar vertebrae.

**III. Short Answers on :** **(10X3=30)**

1. Draw and Label pharynx.
2. Layers of blood vessels.
3. Name the parts of Male Urethra.
4. Draw and label the parts of lymph node.
5. Name the sinuses of brain.
6. Write about the carpal bones.
7. Muscles of breathing.
8. Any three functions of liver.
9. Proteolytic enzymes.
10. Draw and label Aorta.

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

[AHS 1122]

NOVEMBER 2022

Sub. Code: 1801

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY  
FIRST YEAR (Regulations 2010-2011 & 2014-2015)  
PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY RELEVANT  
TO RADIOLOGY  
Q. P. Code: 801801**

**Time: Three hours**

**Maximum : 100 Marks**

**Answer ALL Questions**

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

1. Explain with diagram the anatomy of liver. Write the functions of liver and add a note on liver function tests.
2. Discuss the classification of bones. Add a note on bones of the skull.
3. Write in detail about the anatomy and functions of spinal cord. Add a note on sensory pathway of spinal cord.

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

1. Write about the anatomy of bronchial tree with diagram.
2. Explain the physiology of digestion of food components.
3. Explain the function of various parts of heart.
4. Explain the physiology of urine formation.
5. Write a note on blood disorders.
6. Explain the parts of female reproductive system with diagram.
7. Describe the anatomy of urinary bladder with diagram.
8. Describe the structure and function of salivary glands.

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

1. Write about the formation of cerebrospinal fluid.
2. Name the endocrine glands.
3. Write the layers of Meninges.
4. Draw and explain the lymphatic pathway outline.
5. Explain the parts of stomach with diagram.
6. Blood group systems.
7. Name the parts of the testis with diagram.
8. Functions of ribosomes.
9. Function of venous system.
10. Write about physiology of hearing.

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

**[AHS 0423]**

**APRIL 2023**

**Sub. Code: 1801**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY  
FIRST YEAR (Regulations 2010-2011 & 2014-2015 onwards)  
PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

***Q.P. Code: 801801***

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

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

1. Explain the functions of Kidney. Add a note of pathophysiology of Renal diseases and Oedema.
2. Write in detail about the various parts of the Digestive system. Add a note on pathophysiology of Jaundice.
3. What are Endocrine Glands? Write in detail about the hormones secreted by them and their functions.

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

1. Discuss the bones and joints of Lower extremity.
2. Write a note on coagulation of Blood.
3. Structure and functions of Paranasal sinuses.
4. Anatomy of Upper Respiratory Tract.
5. Describe the structure and function of human cell with diagram.
6. Write briefly about common Cardiovascular disorders.
7. Structure and function of Female Reproductive System.
8. Circulation of CSF.

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

1. Name the bones of the Face.
2. Name the parts of Male reproductive system.
3. Functions of Lymph glands.
4. Functions of Liver.
5. Name the joints of Shoulder girdle.
6. Name the Cranial nerves.
7. Name the Meninges of the Brain.
8. Name the Salivary glands.
9. Composition of Blood.
10. Name the elementary tissues of Human body.

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

**[AHS 1123]**

**NOVEMBER 2023**

**Sub. Code: 1801**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY  
FIRST YEAR (Regulations 2010-2011 & 2014-2015 onwards)  
PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY  
RELEVANT TO RADIOLOGY**

***Q.P. Code: 801801***

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

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

1. Write in detail about the physiology of Respiration.
2. Write about the composition of Blood and its functions.
3. With a neat diagram, explain in detail the structure of the Heart. Add a note on Blood supply of Heart.

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

1. Micturition reflex.
2. Functions of Bile.
3. Anatomy of Portal vein.
4. Wound healing.
5. Conducting system of heart.
6. Bronchopulmonary segments.
7. Phases of Menstrual cycle.
8. Functions of CSF.

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

1. Hormones of Endocrine pancreas.
2. Name three Cranial nerves.
3. Draw Mitochondria and write its functions.
4. Functions of Kidney.
5. Classification of Joints.
6. List out the Plasma Proteins and write any two functions.
7. Importance of Imaging Mammary glands.
8. Landsteiner's law.
9. Surface marking of Arch of Aorta.
10. Portal hypertension.

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

**[AHS 0424]**

**APRIL 2024**

**Sub. Code: 1801**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY  
FIRST YEAR (Regulations 2010-2011 & 2014-2015 onwards)  
PAPER I – HUMAN ANATOMY, PHYSIOLOGY &  
PATHOLOGY RELEVANT TO RADIOLOGY  
*Q.P. Code: 801801***

**Time: Three Hours**

**Answer All questions**

**Maximum : 100 Marks**

**I. Elaborate on :**

**(3 X10 = 30)**

1. Describe the Anatomy and Functions of Stomach.
2. Write in detail about Anatomy of Uterus and Ovary. Add a note on Physiology of Ovulation.
3. Describe the Vertebral Column in detail.

**II. Write Notes on :**

**(8 X 5 = 40)**

1. Mechanism of Respiration.
2. Circle of Willis.
3. Physiology of Taste.
4. Draw and label parts of Large Intestine.
5. Anatomy of Eye.
6. Functional unit of Kidney.
7. Cardiac cycle.
8. Deglutition.

**III. Short Answers on :**

**(10 X 3 = 30)**

1. Define Thrombocytopenia.
2. Define Meningitis.
3. Mention hormones of Thyroid gland.
4. Types of Bones.
5. Types of nerve fibers.
6. Name the ventricles in Brain.
7. Functions of Liver.
8. Define systolic and diastolic Blood Pressure.
9. What is Blood Brain Barrier?
10. Pathophysiology of Edema.

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

**[AHS 1125]**

**NOVEMBER 2025**

**Sub. Code: 1801**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**  
**FIRST YEAR (Regulations 2010-2011 & 2014-2015 onwards)**  
**PAPER I – HUMAN ANATOMY, PHYSIOLOGY & PATHOLOGY**  
**RELEVANT TO RADIOLOGY**  
*Q.P. Code: 801801*

**Time: Three Hours**

**Answer All questions**

**Maximum : 100 Marks**

**I. Elaborate on :**

**(3 x 10 = 30)**

1. Classify Joints and describe about the Synovial Joints.
2. With a neat diagram, elaborate the structure of Kidney and its functions.
3. Define Hemostasis. Describe the various stages involved in Coagulation process.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Pathology of Oedema.
2. Composition of Blood.
3. Menstrual cycle.
4. Structure and Functions of Liver.
5. Wound healing.
6. Difference between Benign and Malignant tumour.
7. Structure of Mammary gland.
8. Absorption of Fat.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Parts of humerus.
2. Name the Endocrine organs.
3. Functions of Nervous system.
4. Deltoid muscle.
5. Action potential.
6. Parts of Female Reproductive System.
7. Pleural effusion.
8. Trendelenberg's test.
9. What are the different types of Anaemia?
10. Acromegaly.

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