[KZ 0811] **AUGUST 2011** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer ALL questions

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

1. Discuss in detail the different stages of Erythropoiesis.
2. Describe the situation, external features and chambers of the heart in detail with suitable diagram.
3. Describe the external features, fissures and lobes of the Lung with suitable diagram.

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

1. Pericardium.
2. Lung volumes and capacities.
3. Structure of Kidney.
4. Synapse.
5. Pleura.
6. Micturation.
7. Superior mediastinum.
8. Respiratory movements.

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

1. Define Cardiac output.
2. Name the clotting factors.
3. Name the blood groups.
4. Name the hormones secreted by anterior lobe of pituitary gland.
5. Mitochondria.
6. Functions of hemoglobin.
7. Reflex arc.
8. Pleura.
9. Name the arteries supplying heart.
10. Functions of blood.

****

[LB 0212] **AUGUST 2012** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER – I ANATOMY AND PHYSIOLOGY

Q.P. Code : **801401**

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 ECG. describe the waves, segments and intervals of Normal ECG. Add a note on ECG leads?	7	20	10
2. Write the types of heart sounds? How will you measure the heart sounds? Add a note on clinical physiology?	7	20	10
3. Describe the anatomical location and coverings of the heart and label its chambers and associated large vessels in diagram?	7	20	10
II. Write Notes on:			
1. Types of Heart sounds.	4	10	5
2. Difference between right lung and left lung?	4	10	5
3. Mention the Valves of heart.	4	10	5
4. Bronchial Tree.	4	10	5
5. Urinary Bladder – Position, External features, relations and applied anatomy.	4	10	5
6. Define hemostasis and add a note on clotting mechanism.	4	10	5
7. Mechanism of Breathing.	4	10	5
8. Define Hypertension and its types.	4	10	5
III. Short Answers on:			
1. Name the granulocytes and state their percentage in whole blood?	2	4	3
2. Blood typing.	2	4	3
3. Draw a diagram on mean electrical axis from electrocardiogram?	2	4	3
4. What is Total Lung Capacity?	2	4	3
5. Define Micturition.	2	4	3
6. Name the different electrocardiographic leads?	2	4	3
7. Glasgow coma scale.	2	4	3
8. Name the Posterior pituitary hormones and its functions.	2	4	3
9. Define Blood pressure and its normal range?	2	4	3
10. List the points of auscultation?	2	4	3

****

[LC 0212] FEBRUARY 2013 Sub. Code: 1401

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER – I ANATOMY AND PHYSIOLOGY

***Q.P. Code :* 801401**

Time: Three hours Maximum: 100 marks

Answer ALL questions.

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

1. Describe the anatomical location and coverings of the heart and label its chambers and associated large vessels in diagram?
2. Define ECG. Describe the waves, segments and intervals of Normal ECG. Add a note on ECG leads?
3. Write on Thoracic cage with respiratory movement and different volumes and capacities of Lung?

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

1. Describe the pathway of clotting mechanism?
2. Measurement of Cardiac Output
3. Mention about the contents and boundaries of abdominal cavity?
4. Explain the cross section of kidney with diagram?
5. Define Hypertension and its types
6. Detail about Bronchopulmonary segments?
7. Mention the Valves of heart
8. Describe the composition of plasma?

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

1. Erythrocyte sedimentation Rate
2. Points of Auscultation
3. Renal Function Test
4. Lobes of Liver
5. Heart sounds
6. Define anemia and its types?
7. Glasgow coma scale
8. Hematocrit
9. Rh Factor
10. Name the thyroid hormones.

****

[LD 0212] **AUGUST 2013** **Sub.Code :1401**

B.SC., CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

Paper I – ANATOMY & PHYSIOLOGY

Q.P Code : 801401

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

Answer All Questions

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

1. Write in Detail About the Blood Supply of Heart.
2. Explain Lung Under following Headings:
   a. External features b. Mediastinal surface c. Applied Anatomy
3. Define Cardiac Output and explain various Factors controlling it. Add a note on Various Methods of its Measurement.

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

1. Intercostal Muscles
2. Trachea
3. Anterior Relations of Right Kidney
4. Auscultatory areas
5. Renal Function Test
6. Lung Volumes
7. Functions of Growth Hormone
8. Shock

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

1. Pleural Recesses
2. Inferior Surface of liver
3. Albumin / globulin Ratio
4. Interior of Right Atrium
5. Glaxo coma scale
6. Biscuspid Valve
7. ureter
8. Rickets
9. Arterial Pulse
10. Autorthymicity

****

[LE 0212] **FEBRUARY 2014** **Sub. Code :1401**

B.SC., CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

Paper I – ANATOMY & PHYSIOLOGY

Q.P Code: 801401

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

Answer All Questions

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

1. Explain Heart under following Headings :
   a.)External Features b. Right Ventricle c. Arterial Supply
2. Explain the Mechanical Events of Cardiac Cycle in detail.
3. Illustrate the reactions of blood coagulation. Discuss the initiation of blood coagulation and the formation and stabilization of fibrin.

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

1. Typical intercostal nerve
2. Broncho pulmonary segments
3. Posterior Relations of Kidney
4. Heart sounds
5. Metabolic Acidosis
6. Vital Capacity
7. Thyroid Function Test
8. Functions of Skin

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

1. Nerve supply of Pleura
2. Bare area of liver
3. First rib
4. Erythrocyte Sedimentation Rate
5. Mitochondria
6. Factors Affecting Cardiac Output
7. Nerve Supply of Bladder
8. Pituitary Gland
9. Sinuses of Pericardium
10. Hypertension

****

[LF 0212] **AUGUST 2014** **Sub.Code :1401**

B.Sc., CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR
Paper I – ANATOMY & PHYSIOLOGY
Q.P Code : 801401

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

Answer All Questions

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

1. What is cardiac cycle? Describe in detail.
2. Enumerate the bones forming the thoracic cage. Describe the joints formed by vertebrae and ribs.
3. Write about the external features of Heart. Give the venous drainage of heart.

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

1. Nephron.
2. Nerve supply of Pleura.
3. Electrocardiogram.
4. Heart valves.
5. Clotting factors.
6. Ribosomes & their functions.
7. Plasma proteins.
8. Conducting system of heart.

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

1. Systemic circulation.
2. Respiratory muscles.
3. Heart rate.
4. Pulmonary ligament.
5. Sternal angle & its importance.
6. Pituitary gland.
7. Vital capacity.
8. Areas of auscultation.
9. White Blood corpuscle.
10. Superior vena cava.

******

[LG 0215] **FEBRUARY 2015** **Sub.Code :1401**

B.Sc., CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR
Paper I – ANATOMY & PHYSIOLOGY
Q.P Code : 801401

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

Answer All Questions

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

1. Describe in detail about the coronary circulation & its Clinical importance.
2. Describe the structure of cell in detail. Add a note on the functions of various organelles.
3. Enumerate the organs of respiratory pathway. Give a short account on respiratory movements.

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

1. Heart sounds.
2. Platelet formation and function.
3. Function of blood.
4. Bronchopulmonary ligament.
5. Right atrium.
6. Name the different planes and axis of human body.
7. Intercostal space.
8. Pleura.

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

1. Endocytosis.
2. Alkalosis.
3. Joints of sternum.
4. Root of lung.
5. Branches of subclavian artery.
6. Thyroid gland.
7. Myocardial infarction.
8. Glomerular filtration rate.
9. Red Blood corpuscle.
10. Superficial cardiac plexus.

******

[LH 0815] **AUGUST 2015** **Sub.Code :1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

Paper I – ANATOMY AND PHYSIOLOGY

Q.P Code : 801401

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

Answer All Questions

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

1. What is ECG? Mention the various waves in ECG and their cause. Add a note on Angina.
2. Mention the composition and functions of blood. Write in detail about functions of WBC.
3. Write in detail about the Anatomy of Kidney. Blood flow and applied anatomy.

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

1. What is synapse and mention its functions?
2. Anatomy of Pulmonary Circulation.
3. Coverings of Brain.
4. Anatomy of Portal Circulation.
5. Functions of Platelets.
6. Functions of hemoglobin.
7. Test for Renal Function.
8. Hormones of Anterior Pituitary.

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

1. What is Tidal Volume?
2. Mention the normal Pleural pressures.
3. What is CSF?
4. Functions of Calcitonin.
5. What is exocytosis?
6. Mention three cranial nerves.
7. Anatomy of Tricuspid valve.
8. Parts of typical neuron.
9. Layers of Urinary Bladder.
10. Draw and Label coronary circulation.

******

[LI 0216] FEBRUARY 2016 **Sub.Code :1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

Paper I – ANATOMY AND PHYSIOLOGY

Q.P Code : 801401

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

Answer All Questions

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

1. Write in detail about various chambers of Human Heart, add a note on Coronary circulation.
2. Mention the composition and functions of blood, what is Anemia?
3. Define Blood pressure, Regulations of Blood pressure and add a note on Hypertension.

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

1. Anatomy of Bronchial tree.
2. Nerve supply of Urinary bladder.
3. Bony thoracic cage and its importance.
4. Blood supply of Liver.
5. Functions of RBC.
6. Functions of WBC.
7. What is Chronic Renal Failure?
8. Thyroid Function test.

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

1. What is vital capacity?
2. Mention the normal composition of Urine.
3. What is Glaxo coma scale (GCS)?
4. Hormones secreted from Anterior Pituitary Gland.
5. What is endocytosis?
6. Intercostal nerve.
7. Anatomy of artery.
8. Parts of nephron.
9. Anatomy of bone.
10. Draw and Label various organelles of a cell.

******

[LJ 0816] AUGUST 2016 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Explain the anatomy of major blood vessels of Heart.
2. Explain the mechanism of Urine formation.
3. Define Blood pressure. Discuss in detail about Hypertension.

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

1. Coronary arteries.
2. Lung volumes and Lung capacities.
3. Functions of Plasma Proteins.
4. Auscultatory areas.
5. Intercostal Muscles.
6. Valves of Heart.
7. Xiphoid process of Sternum.
8. Composition and Physical properties of Blood. Add a note on functions of RBC.

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

1. Sinuses of Pericardium.
2. Functions of Endoplasmic reticulum.
3. Histology of bronchioles.
4. Effect of Thyroid Hormones on Metabolism of Carbohydrates.
5. Function of platelets.
6. Renal artery.
7. Glasgow coma Scale.
8. Difference between Right Lung and Left Lung.
9. Rh factor.
10. Alkalosis.

****

[LK 0217] FEBRUARY 2017 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Describe the Surfaces, borders, Lobes, Fissures and blood supply of Right Lung with a neat diagram.
2. Define Cardiac cycle and explain its phases.
3. Write in detail the mechanism of clotting of blood.

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

1. Body of the Sternum.
2. Valves of Heart.
3. Functions of Parathormone.
4. Factors affecting Glomerular filtration rate.
5. Heart Sounds.
6. Primary Hypertension.
7. Intercostal Muscles.
8. Anatomy of Trachea.

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

1. List the Hormones secreted by Anterior pituitary and Thyroid gland.
2. Sinuses of Pericardium.
3. Arch of the Aorta.
4. Define: (a) Systolic Blood Pressure (b) Diastolic Blood Pressure.
5. Extra cellular fluid.
6. Glasgow Coma Scale.
7. Functions of Hemoglobin.
8. Anatomical planes.
9. Blood supply to liver.
10. Functions of endoplasmic reticulum.

****

[LL 0817] AUGUST 2017 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR
PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Describe the external features, fissures and lobes of the lung with suitable diagram.
2. Describe in detail the synthesis and functions of thyroid hormones.
3. Define arterial blood pressure. Describe the nervous regulation of arterial blood pressure.

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

1. Describe the Structure of kidney.
2. Explain the Bronchopulmonary segments.
3. Explain the anatomy of Right coronary artery.
4. Discuss the Ligaments of liver.
5. Explain the waves of a Normal ECG.
6. Explain the stages of development of erythrocytes.
7. Enumerate the hormones secreted by anterior pituitary gland. Describe the actions of growth hormone.
8. Define Micturition and add a note on it.

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

1. Describe Thoracic part of trachea.
2. Functions of Mitochondria and Golgi Apparatus.
3. Write the features of Arch of Aorta.
4. Draw a typical intercostal space.
5. Explain the features of Trigone of urinary bladder.
6. Describe the terms : Pronation and supination.
7. Actions of Insulin.
8. Write the significance of erythrocyte sedimentation rate.
9. Define Glomerular filtration rate and write its normal value.
10. Explain the role of sweat glands in thermoregulation.

****

[LN 0818] AUGUST 2018 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Discuss in detail the different stages of Erythropoiesis. Define Anaemia.
2. Describe the external features, fissures and lobes of the Lung with suitable diagram.
3. Define Blood pressure, Regulation of Blood pressure and add a note on Hypertension.

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

1. Classify WBC's and Mention the functions of each.
2. Thyroid function test.
3. Lung volumes and lung capacities.
4. Micturition.
5. Mention the Valves of heart.
6. Describe about the Position, External features and applied anatomy of Urinary bladder.
7. Mention about the contents and boundaries of abdominal cavity.
8. Inter costal Muscles.

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

1. Autorhythmicity.
2. Albumin / globulin Ratio.
3. Rickets.
4. Define shock. Name various types of shock.
5. Inferior Surface of liver.
6. First rib.
7. Respiratory muscles.
8. Sternal angle and its importance.
9. Branches of subclavian artery.
10. Draw and Label the parts of the kidney.

****

[LP 0819] AUGUST 2019 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Define Cardiac cycle and explain its phases in detail.
2. Write in detail about the Anatomy of Kidney. Discuss about the Blood flow. Add an account on its applied anatomy.
3. Mention the composition and functions of blood. Write in detail about functions of WBC.

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

1. Superior Mediastinum.
2. Define ECG. Describe the waves, segments and intervals of Normal ECG.
3. Name the hormones secreted by the Thyroid gland. Discuss in detail about Thyroid Function test.
4. What is synapse and mention its functions?
5. Anatomy of Portal Circulation.
6. Nerve supply of Urinary bladder.
7. Name and discuss about the Hormones of the anterior pituitary.
8. Functions of Plasma Proteins.

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

1. Functions of platelets.
2. Landsteiner's law.
3. Draw and label the parts of Nephron.
4. Define Haemostasis.
5. Heart sounds.
6. Chambers of the Heart. Mention about the interior of the Right atrium.
7. Anatomy of artery.
8. Intercostal nerve.
9. Draw and Label various organelles of a cell.
10. Mention the difference between Right Lung and Left Lung.

****

[LQ 0220] FEBRUARY 2020 **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code: 801401

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

Answer all questions

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

1. Describe the mechanism of urine formation.
2. Describe about the anatomical location and coverings of the heart and label its chambers. Mention about the valves of the Heart.
3. Write about respiratory movements. Describe the lung volumes and capacities.

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

1. Functions of Haemoglobin.
2. Write in detail about the coronary circulation and its Clinical importance.
3. Describe in detail about the pathway of clotting mechanism.
4. Renal function test.
5. Detail about Broncho pulmonary segments?
6. Anterior Relations of the Right Kidney.
7. Difference between smooth muscle and skeletal muscle.
8. Name the different planes and axis of human body.

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

1. Hypoxia.
2. Blood grouping and Rh typing.
3. Draw a diagram of ECG and name the waves. Mention two uses of ECG.
4. Mechanism of Breathing.
5. Erythrocyte sedimentation rate.
6. Branches of subclavian artery.
7. Joints of sternum.
8. Mention about three cranial nerves.
9. What is tetany? Discuss about the features of it.
10. Anatomy of bone.

****

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

[AHS 0321] MARCH 2021 Sub. Code: 1401

(AUGUST 2020 EXAM SESSION)

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY

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

PAPER I – ANATOMY AND PHYSIOLOGY

Q.P. Code : 801401

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

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

1. Discuss in detail the composition and functions of blood.
2. Describe the anatomy of heart under the following headings:
   (a) Location (b) Coverings (c) Chambers (d) Blood supply
3. Define Electrocardiogram (ECG). Name the ECG leads.. Describe the waves, segments and intervals of normal Lead II ECG.

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

1. Describe the bones forming the bony thoracic cage.
2. Define mediastinum. What are the structures present in it?
3. Name the plasma proteins and write their functions.
4. Explain the mechanism of breathing.
5. Write about the conducting system of heart.
6. How is arterial blood pressure regulated?
7. Explain the mechanism of urine formation.
8. Define cardiac cycle and write about the phases of cardiac cycle.

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

1. Name the sinuses of pericardium.
2. Name the auscultation areas of heart.
3. Define vital capacity.
4. Define exocytosis.
5. Define alkalosis.
6. Define synapse.
7. Mention the renal function tests.
8. Write about the blood supply to liver.
9. Name the valves of the heart.
10. Name the hormones secreted by anterior pituitary.

****

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

[AHS 0422] APRIL 2022 Sub. Code: 1401

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSIONS)
FIRST YEAR (From 2010-2011 & 2014-2015 onwards)
B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
PAPER I – ANATOMY & PHYSIOLOGY
Q.P NO. 801401

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

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

1. Describe heart with suitable diagram under the following headings:
   a) Location b) External features c) Chambers & Valves.
2. Explain the mechanism of Urine formation with suitable diagrams.
3. Draw and Explain the Waves, Segments and Interval of Normal ECG. Add a note on its Uses.

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

1. Explain Lung Volume and capacities.
2. Describe the External features and functions of Kidney.
3. Write in detail the Bronchopulmonary segments.
4. Explain the Physiology of Blood pressure.
5. Describe Pericardium and its applied aspects with diagram.
6. Enumerate Plasma proteins and its functions.
7. Define Erythrocyte Sedimentation Rate and importance.
8. Explain the physiology of Hemostasis.

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

1. List out the large vessels of heart.
2. Functions of Platelets.
3. Endoplasmic Reticulum & its importance.
4. Define Scurvy and mention 2 clinical features.
5. Define Pronation and Supination.
6. List out the Thyroid Function Test.
7. Define Synapse and its importance.
8. Describe Portal circulation.
9. Explain Inter coastal space.
10. Root of lung and its clinical significance.

*****

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

[AHS 1122] **NOVEMBER 2022** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR (Regulations 2010-2011 & 2014-2015)
PAPER I – ANATOMY & PHYSIOLOGY
Q. P. Code: 801401

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

Answer ALL Questions

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

1. Explain Blood under the following headings:
   A) Composition B) Functions C) Blood Groups.
2. Define Cell. Draw the structure and label it. Write a note on Functions of various Cell organelles.
3. Explain the External features of Heart. Add a note on its applied anatomy.

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

1. Clotting factors.
2. Auscultatory Areas.
3. ECG Leads.
4. Cerebrospinal fluid.
5. Pericardium.
6. Myocardial infarction.
7. Broncho-Pulmonary segment.
8. Conducting System of Heart.

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

1. Draw and Label a Neuron.
2. Secretions of Pancreas.
3. Subdivisions of Mediastinum.
4. Define Cardiac Output.
5. Functions of Hemoglobin.
6. Parts of Nephron.
7. Lobes of the Liver.
8. Erythrocyte Sedimentation Rate.
9. Name any three Clotting Factors.
10. Blood supply of the Kidney.

****

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

[AHS 0423] **APRIL 2023** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER I – ANATOMY & PHYSIOLOGY
Q.P. Code:. 801401

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

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

1. Explain Pleura under the following headings:
   a) Layers b) Pleural recesses c) Applied Anatomy.
2. Discuss about the blood supply of Heart. Add a note on Applied Anatomy.
3. Describe the Physiology of Blood pressure. Add a note on Hypertension.

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

1. Describe the components of Blood.
2. Intercostal space.
3. Explain the physiology of Micturition.
4. Describe the physiology of Heart sounds.
5. Tracheo-bronchial tree.
6. Describe Pituitary gland and its functions.
7. Draw and label the parts of Nephron.
8. Define Endocytosis and Exocytosis with its importance.

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

1. Sternal Angle and its importance.
2. Areas of Auscultation.
3. Lobes of liver.
4. Mitochondria and its functions.
5. Explain Metabolic Acidosis with its causes.
6. Define Albumin / Globulin ratio with two clinical significances.
7. Hilum of Kidney.
8. Explain Landsteiner’s Law.
9. Define Cardiac output with its importance.
10. Define Jaundice and its types.

****

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

[AHS 1123] **NOVEMBER 2023** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER I – ANATOMY & PHYSIOLOGY
Q.P. Code: 801401

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

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

1. Write in detail the Lung with suitable diagram under the following headings:
   a) External features b) Fissures c) Lobes.
2. Describe the anatomical features of Kidney with its blood supply. Add a note on its Applied Anatomy.
3. Name the Clotting factors. Explain the mechanism of Hemostasis.

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

1. Explain in detail the Valves of Heart and their functions.
2. Describe the Right Atrium with its applied aspects.
3. Blood grouping and Rh typing.
4. Define Electrocardiogram. Draw and explain the normal ECG.
5. Draw the structure of Cell and describe the organelles.
6. Mechanism of Thermoregulation.
7. Superior Mediastinum and its applied anatomy.
8. Blood supply of Liver.

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

1. What is Apex beat? Write its clinical significance.
2. Define Glasgow Coma Scale.
3. Enumerate the Branches of Aorta.
4. Define Glomerular Filtration Rate with its normal range.
5. Erythrocyte Sedimentation Rate.
6. How is Bare area of Liver formed? Write its applied aspects.
7. Physiology of Myocardial infarction.
8. Endocytosis and Exocytosis.
9. Describe Reflex arc with its components.
10. Tidal volume.

****

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

[AHS 0424] **APRIL 2024** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER I – ANATOMY & PHYSIOLOGY
Q.P. Code: 801401

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

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

1. What is Cardiac cycle? Describe in detail the various stages with diagrams.
2. Describe the structure of Human cell. Add a note on the functions of various Organelles.
3. What is Haemostasis? List the clotting factors. Discuss the steps of Blood Coagulation.

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

1. Juxtaglomerular apparatus.
2. Pericardium.
3. Electrocardiogram.
4. Metabolic acidosis.
5. Glasgow coma scale.
6. Pleura.
7. Broncho-pulmonary segments.
8. Vital capacity.

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

1. Rh factor.
2. Trachea.
3. Arterial Pulse.
4. Calcitonin.
5. Blood supply of the kidney.
6. Erythropoietin.
7. Heart sounds
8. Tricuspid valve.
9. Endocytosis.
10. Superior vena cava.

****

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

[AHS 1125] **NOVEMBER 2025** **Sub. Code: 1401**

B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY
FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2018-2019 onwards)
PAPER I – ANATOMY & PHYSIOLOGY
Q.P. Code: 801401

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

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

1. Explain in detail the different stages and factors affecting Erythropoiesis. Add a note on Anaemia.
2. Describe in detail the anatomy of Coronary circulation and its Clinical importance.
3. Describe the conduction system of the heart with suitable diagrams. Add a noteon pacemaker potential.

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

1. Surface marking of Heart.
2. Hormones of Posterior pituitary.
3. Lung volumes and lung capacities.
4. Oxygen Dissociation Curve.
5. Left atrium.
6. Intercostal space.
7. Mediastinum.
8. Hypertension.

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

1. Blood groups.
2. Growth Hormone.
3. Diabetes mellitus.
4. Diastolic pressure.
5. Valves of Heart.
6. First rib.
7. Blood supply of Kidney.
8. Tracheobronchial tree.
9. Pericardium.
10. Functions of platelets.

****