

[KZ 0811]

AUGUST 2011

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the diagram of digestive system and explain its structures and functions.
2. How is Urine formed? Describe the mechanism in detail.
3. Define enzyme, coenzyme and iso enzyme. Describe the factors affecting the enzyme activity in detail.

II. Write notes on:

(8 x 5 = 40)

1. Describe the neuron structure and its properties.
2. Reflex arc.
3. Short notes on Retina.
4. Structures associated with Pharynx.
5. Rh incompatibility.
6. Vision pathway.
7. Disorders of calcium and phosphorus metabolism.
8. Unsaturated fatty acids.

III. Short Answers on:

(10 x 3 = 30)

1. Planes of the body.
2. List endocrine glands and their secretions.
3. Referred pain.
4. Difference between temporary and permanent teeth.
5. Plasma membrane.
6. Abnormal constituents of urine.
7. Receptors.
8. Sunshine vitamin.
9. Aminoacids.
10. Anaerobic respiration.

[LA 0212]

FEBRUARY 2012

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the diagram of section of eye and explain. Mention its functions.
2. Describe in detail the Cardiac cycle.
3. Describe in detail about Vitamin B complex.

II. Write notes on:

(8 x 5 = 40)

1. Characteristics of Muscles.
2. Circle of Willis.
3. Puberty in female.
4. Structure and function of ovaries.
5. Functions of liver.
6. ECG.
7. Lung volume and its capacities.
8. Thyroid disorders.

III. Short Answers on:

(10 x 3 = 30)

1. What are the lymphatic tissues in the body?
2. Brachial plexus.
3. Difference between sympathetic and parasympathetic nervous system.
4. What are the four layers of the walls of the Alimentary tract?
5. Arches of food.
6. Name the clotting factors.
7. Synapse.
8. Starch and glycogen.
9. Iron.
10. Urine analysis.

[LB 0212]

AUGUST 2012

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I - ANATOMY, PHYSIOLOGY, BIOCHEMISTRY

Q.P. Code : 801601

Time : Three hours

Maximum : 100 marks

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

I. Elaborate on :

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

- | | | | |
|--|---|----|----|
| 1. Classify the joints and give a detailed account on shoulder joint. | 7 | 20 | 10 |
| 2. Define erythropoiesis. List the different stages of erythropoiesis. Explain briefly about factors regarding it. | 7 | 20 | 10 |
| 3. Give an account of sources, chemistry and deficiency manifestations of Vitamin C. | 7 | 20 | 10 |

II. Write notes on:

- | | | | |
|------------------------|---|----|---|
| 1. Pancreas. | 4 | 10 | 5 |
| 2. Kidney. | 4 | 10 | 5 |
| 3. Pericardium. | 4 | 10 | 5 |
| 4. Brachial artery. | 4 | 10 | 5 |
| 5. Lung Surfactant. | 4 | 10 | 5 |
| 6. Functions of Liver. | 4 | 10 | 5 |
| 7. Heart sounds. | 4 | 10 | 5 |
| 8. Urea cycle. | 4 | 10 | 5 |

III. Short Answers on:

- | | | | |
|---|---|---|---|
| 1. Enumerate the cranial nerves. | 2 | 4 | 3 |
| 2. Femur. | 2 | 4 | 3 |
| 3. Myasthenia gravis. | 2 | 4 | 3 |
| 4. Functions of WBC. | 2 | 4 | 3 |
| 5. Innate immunity. | 2 | 4 | 3 |
| 6. Steatorrhea. | 2 | 4 | 3 |
| 7. Liver function test based on detoxification. | 2 | 4 | 3 |
| 8. Functions of essential fatty acids. | 2 | 4 | 3 |
| 9. Structure of DNA. | 2 | 4 | 3 |
| 10. Hormonal regulation of blood glucose. | 2 | 4 | 3 |

[LC 0212]

FEBRUARY 2013

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I - ANATOMY, PHYSIOLOGY, BIOCHEMISTRY

Q.P. Code : 801601

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Elaborate on :

3x10=30

1. Regulation of respiration.
2. Answer the following about the heart:
 - a. Situation
 - b. Dimensions
 - c. Surfaces
 - d. Apex
 - e. Right ventricle
3. Structure of protein and urea cycle

II. Write notes on:

8x5=40

1. Bio medical importance of phospholipids.
2. Micturition.
3. Pulmonary tuberculosis.
4. Artificial respiration.
5. Cyanosis.
6. Pleura.
7. Functions of skin.
8. Insulin.

III. Short Answers on:

10x3=30

1. Hering Breuer Reflex.
2. Caisson's disease.
3. Hyperkalemia.
4. Emphysema.
5. A. Fovea. B. sinus. C . hamulus.
6. Covering of skeletal muscle.
7. Difference between voluntary muscle and involuntary muscle.
8. Nissl's Bodies.
9. Lower end of the humerus.
10. Scurvy.

[LD 0212]

August 2013

Sub.code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I - ANATOMY, PHYSIOLOGY, BIOCHEMISTRY**

Q.P. Code : 801601

Time : Three hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on: (3X10=30)

1. Hollow abdominal organs of the human body
2. The Male reproductive system
3. The water soluble vitamins

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

1. Cell mediated immunity
2. Brachial plexus
3. Ascorbic acid
4. Epidermis
5. Posterior pituitary hormones
6. Granulocytes
7. Balanced Diet
8. Skull bone

III. Short answers on : (10X3=30)

1. Meninges
2. Automaticity
3. Vitreous humor
4. Ascending tracts
5. Repolarisation
6. Hepatic portal system
7. Ankle joint
8. Muscles for chewing & swallowing
9. Maple syrup urine disease
10. Different types of peptide bonds

[LE 0212]

FEBRUARY 2014

Sub. code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I - ANATOMY, PHYSIOLOGY, BIOCHEMISTRY**

Q.P. Code : 801601

Time : Three hours

Maximum : 100 marks

Answer ALL questions

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

1. Explain Heart under following headings :

A. External Feature B. Right Atrium C. Surface marking

2. Explain the events of Cardiac Cycle in detail.

3. Describe in detail about Glycolysis , its energetic and regulation.

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

1. Biceps brachii

2. Ureter

3. Sternum

4. Platelets

5. Role of bile in digestion

6. Functions of thyroxine

7. Walds visual cycle

8. Enzyme pattern in Myocardial infraction

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

1. Muscles of Respiration

2. Cartilage

3. Boundary of Thoracic inlet

4. Supinator

5. Lung volume

6. Insulin

7. Mention the phases of Menstrual cycle

8. Balanced diet

9. Muco polysaccharides

10. Lipoproteins

[LF 0212]

AUGUST 2014

Sub.Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I - ANATOMY, PHYSIOLOGY & BIOCHEMISTRY**

Q.P. Code : 801601

Time : Three hours

Maximum : 100 marks

Answer ALL questions

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

1. How urine is formed? Describe the mechanism in detail.
2. Answer the following about the heart
 - a. situation
 - b. dimensions
 - c. surfaces
 - d. apex
 - e. right ventricle
3. Define erythropoiesis, list the different stages of erythropoiesis, explain briefly about factors regulating it.

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

1. What are the functions of liver.
2. What is spermatogenesis.
3. What are the gastric juices and its functions.
4. What are the joints in pelvic girdle, mention the bones forming it.
5. Define electrocardiogram.
6. What is cerebrospinal fluid how it is circulated.
7. What is basal metabolic rate.
8. Enzymes in myocardial infarction.

III Short answers on: **(10X3=30)**

1. What are the phases of menstrual cycle.
2. Define shock and classify it.
3. What are the coverings of the kidney.
4. Write a brief note on simple proteins.
5. What are RBC's what are its variations.
6. Draw a neat diagram of typical rib and label its parts.
7. Define pH, molarity, molality.
8. Name the valves of heart.
9. What are the hormones from adrenal medulla.
10. What are the types of anemia.

[LG 0215]

FEBRUARY 2015

Sub.Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I - ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY**

Q.P. Code : 801601

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw a neat diagram of clavicle, label its parts and explain its features and muscles attachment.
2. Classify proteins, based on their structure and functions.
3. Describe the parts of neuron and classify nerve fibers and draw a typical spinal nerve.

II. Write notes on:

(8 x 5 = 40)

1. Write about protein energy malnutrition.
2. Define phospholipids.
3. What are the types of blood groups?
4. Write a note on components of blood.
5. Short notes on retina.
6. Explain Vision pathway.
7. Bronchopulmonary segments with diagram.
8. Write about pericardium.

III Short answers on:

(10 x 3 = 30)

1. Mention the function of thyroid hormone in brief.
2. Write short notes on pleura.
3. Name the hormones which regulates glycogen metabolism.
4. Functions of ribosomes.
5. Name the bones of upper limb.
6. What is referred pain?
7. What is cardiac output?
8. What are the branches of arch of aorta?
9. List the contents of popliteal fossa.
10. What is anaerobic respiration?

[LH 0815]

AUGUST 2015

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR**

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about the blood supply of brain.
2. Define Blood pressure. Discuss the role of kidneys in the regulation of BP.
Add a note on hypertension.
3. Define and classify enzymes with suitable examples. Explain in detail about factors affecting enzyme.

II. Write notes on:

(8 x 5 = 40)

1. Arterial supply of heart.
2. Movements of hip joint.
3. Juxta glomerular apparatus.
4. Erythroblastosis fetalis.
5. Functions of kidney.
6. Discuss about polysaccharides.
7. Lipoproteins and their types.
8. Jaundice.

III. Short Answers on:

(10 x 3 = 30)

1. Name the salivary glands.
2. Name the parts of liver.
3. Name the parts of nephron.
4. Myxoedema.
5. Four functions of hypothalamus.
6. Hemiplegia.
7. Aphasia.
8. Basal metabolic rate.
9. Vitamin D deficiency.
10. Importance of HDL and LDL.

[LI 0216]

FEBRUARY 2016

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR**

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Give an account of femoral triangle under the following headings. Location, boundaries and contents. Write in detail about femoral artery.
2. Define menstrual cycle. Name the different phases of menstrual cycle and discuss the hormonal changes during menstrual cycle.
3. Describe the chemistry, biochemical functions, daily requirement, sources and deficiency manifestations of Vitamin D.

II. Write notes on:

(8 x 5 = 40)

1. Classification of joints with examples.
2. External features of heart.
3. Name the different types of blood groups and its significance.
4. Sarcomere.
5. Functions of lung.
6. Phospholipids and their significance.
7. Biochemical significance of blood buffers.
8. Diabetes mellitus.

III. Short Answers on:

(10 x 3 = 30)

1. Name the ear ossicles.
2. Name the parts of urinary system.
3. Name the respiratory organs.
4. Name the types of hypoxia.
5. Functions of gastric juice.
6. Stroke volume.
7. Name the hormones of anterior pituitary.
8. Beri –Beri.
9. Reducing sugars.
10. Enzyme inhibition.

[LJ 0816]

AUGUST 2016

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Describe the anatomy of Kidney and Urinary bladder.
2. List out the glands of Endocrine system. Elaborate on hormones of Anterior Pituitary.
3. Discuss Fat soluble Vitamins.

II. Write notes on:

(8 x 5 = 40)

1. Factors affecting enzyme activity.
2. Functions of Liver.
3. Inborn errors of metabolism.
4. Clavicle.
5. Anatomy of Right Lung.
6. Functions of Skin.
7. Meninges.
8. Conduction system of heart.

III. Short Answers on:

(10 x 3 = 30)

1. Calcitonin.
2. Functions of Mitochondria and Golgi Apparatus.
3. Pleura.
4. Potassium.
5. Tidal volume and Inspiratory Reserve Volume.
6. Elastic cartilage.
7. Functions of connective tissue.
8. Epididymis.
9. Trigone of Urinary Bladder.
10. Fatty acids.

[LK 0217]

FEBRUARY 2017

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Define and Classify Enzymes. Discuss the factors affecting Enzyme activity.
2. Write in detail about Valves and Chambers of Heart? Add a note on Cardiac cycle.
3. Explain Structure and Functions of Liver.

II. Write notes on:

(8 x 5 = 40)

1. Explain features of Clavicle with diagram.
2. Micturition.
3. Properties and structure of glucose.
4. Synapse.
5. Mechanism of Respiration.
6. Functions of Protein.
7. Simple epithelium- Types and functions.
8. Anatomy of Uterus.

III. Short Answers on:

(10 x 3 = 30)

1. Retina.
2. Functions of CSF.
3. Phospholipids.
4. Blood brain barrier.
5. Properties of Sodium.
6. Elastic Cartilage.
7. Stroke Volume.
8. Diaphragm.
9. Insulin.
10. Muscular layers of Stomach.

[LL 0817]

AUGUST 2017

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the neat diagram of Heart and explain about Cardiac Cycle.
2. Explain about the physiology of Respiration.
3. Define and classify Vitamins. Explain the Difference between fat soluble and water soluble vitamins.

II. Write notes on:

(8 x 5 = 40)

1. Functional classification of Proteins.
2. Functions of Saliva.
3. Renin Angiotensin Mechanism.
4. Hemoglobin.
5. Meninges of Brain.
6. Retina.
7. Stages in primary wound healing.
8. Mechanism of Enzyme action.

III. Short answers on:

(10 x 3 = 30)

1. Glucose Tolerance Test.
2. Cardiac Output.
3. Functions of Eyelids.
4. Functions of Skull bone.
5. Functions of Carbohydrates.
6. Layers of Uterus.
7. Vitamin C-Sources and its deficiencies.
8. Ankle joint.
9. Insulin.
10. Structure of DNA.

[LM 0218]

FEBRUARY 2018

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY**

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the structure of Cerebrum and explain its functions.
2. Describe in detail about Physiology of sight.
3. Define Fatty acids and classify Fatty acids with suitable examples and mention its functions.

II. Write notes on:

(8 x 5 = 40)

1. Cerebro Spinal Fluid.
2. Neuromuscular Junction.
3. Plasma proteins.
4. Brain stem.
5. Urinary bladder.
6. Inborn errors of metabolism.
7. Synovial joint.
8. Structure of stomach and its functions.

III. Short answers on:

(10 x 3 = 30)

1. Blood cells.
2. Fibro cartilage.
3. Blood pressure.
4. What is Broca's Area?
5. Name the hormones secreted by the anterior pituitary gland.
6. Muscles of breathing.
7. Functions of Tongue.
8. Name the clotting factors.
9. Essential Fatty acids.
10. Lipoproteins.

[LN 0818]

AUGUST 2018

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR
PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY**

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the microscopic structure of Kidney and explain its functions.
2. Explain the Digestive functions of Small intestines and its secretions.
3. Define Amino acids and classify Amino acids in various ways with suitable examples and its functions.

II. Write notes on:

(8 x 5 = 40)

1. Pleural cavity.
2. Bile duct.
3. Classification of Enzymes.
4. Structure of the Skin with neat labeled diagram.
5. Vertebral column.
6. Synovial Joints of the limbs.
7. Mammary glands.
8. Circle of Willis.

III. Short answers on:

(10 x 3 = 30)

1. Classification of fatty acids.
2. Functions of Ribosome's.
3. Lacrimal Apparatus.
4. Female Urethra.
5. Name the Cranial nerves.
6. Functions of Folic acid.
7. Leukocytes.
8. Columnar Epithelium.
9. Organs associated with heart.
10. Lymph nodes.

[LO 0219]

FEBRUARY 2019

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw the neat diagram of Heart and explain about Cardiac Cycle.
2. Describe in detail about the mechanism of formation of urine.
3. Describe in detail about Glycolysis, its energetic and regulation.

II. Write notes on:

(8 x 5 = 40)

1. Write a note on components of blood.
2. Functions of kidney.
3. What is cerebrospinal fluid how it is circulated?
4. Erythroblastosis fetalis.
5. Wald's visual cycle.
6. Classification of fatty acids.
7. Mechanism of Enzyme action.
8. Role of bile in digestion.

III. Short answers on:

(10 x 3 = 30)

1. Draw a neat diagram of typical rib and label its parts.
2. Spermatogenesis.
3. Reflex arc.
4. Mention the phases of Menstrual cycle.
5. Lung volume.
6. Pericardium.
7. Diabetes mellitus.
8. Function of thyroid hormone.
9. Peptide bond.
10. Pellagra.

[LP 0819]

AUGUST 2019

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Define erythropoiesis, list the different stages of erythropoiesis, explain briefly about factors regulating it.
2. Explain about the physiology of respiration.
3. Explain in detail about the liver function test.

II. Write notes on:

(8 x 5 = 40)

1. Granulocytes and agranulocytes.
2. Circle of Willis.
3. Electrocardiogram.
4. Blood clotting factors.
5. Functions of skin.
6. Polysaccharides.
7. Urea cycle.
8. Enzymes in myocardial infarction.

III. Short answers on:

(10 x 3 = 30)

1. Pleura.
2. Brachial plexus.
3. Humerus.
4. Nissl's Bodies.
5. Synovial joint.
6. Essential Fatty acids.
7. Name the hormones which regulates glycogen metabolism?
8. Highdensity lipoproteins.
9. Hyperkalemia.
10. Aromatic acids.

[LQ 0220]

FEBRUARY 2020

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801601

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about the blood supply of brain.
2. Explain in detail about the digestive system.
3. Classify lipids with its biological importance.

II. Write notes on:

(8 x 5 = 40)

1. Different types of muscles.
2. Brachial plexus.
3. Posterior pituitary hormones.
4. Vision pathway.
5. Clavicle.
6. Hemoglobin.
7. Factors affecting enzyme activity.
8. Inborn errors of carbohydrate metabolism.

III. Short answers on:

(10 x 3 = 30)

1. Meninges.
2. Femur.
3. Name the valves of heart.
4. Functions of Mitochondria.
5. Synapse.
6. Cartilage.
7. Reducing sugars.
8. Simple proteins.
9. Maple syrup urine disease.
10. Ascorbic acid.

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

[AHS 0321]

MARCH 2021

Sub. Code: 1601

(AUGUST 2020 EXAM SESSION)

B.Sc. PHYSICIAN ASSISTANT

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

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code : 801601

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Name the parts of small intestine. Write the details about structure and digestive and absorptive functions of small intestine.
2. Define Erythropoiesis. List the different stages of Erythropoiesis. Explain briefly about factors regarding it.
3. Describe the chemistry, biochemical functions, daily requirement, sources and deficiency manifestations of Vitamin D.

II. Write notes on:

(8 x 5 = 40)

1. Meninges of Brain.
2. Synovial joint.
3. Structure of the Skin and its functions.
4. Juxtaglomerular apparatus.
5. Heart sounds.
6. Contraceptive methods.
7. Urea cycle.
8. Unsaturated fatty acids.

III. Short answers on:

(10 x 3 = 30)

1. Difference between sympathetic and parasympathetic nervous system.
2. Boundary of Thoracic inlet.
3. Draw a neat diagram of typical rib and label its parts.
4. Functions of connective tissue.
5. Define Cardiac Output. Mentions the factors affecting it.
6. Name the cells and hormones secreted by the anterior pituitary gland.
7. Name the clotting factors.
8. Glucose Tolerance Test.
9. Enzyme inhibition.
10. Importance of HDL and LDL.

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

[AHS 0422]

APRIL 2022

Sub. Code: 1601

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSIONS)

B.Sc. PHYSICIAN ASSISTANT

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

PAPER I– ANATOMY, PHYSIOLOGY & BIO-CHEMISTRY

Q.P NO. 801601

Time: Three hours

Maximum :100 Marks

Answer All questions

I. Elaborate on:

(3X10=30)

1. Describe in detail about chambers and blood supply of the heart.
2. Describe in detail about lung volume and capacities.
3. Describe the fat-soluble vitamins in detail.

II. Write short notes on:

(8X5=40)

1. Anatomy of Pancreas.
2. Anatomy of tongue.
3. Cardiac cycle.
4. Functions of white blood cells.
5. Cerebrospinal fluid (CSF) and its functions.
6. Wald's visual cycle.
7. Inborn errors of carbohydrate metabolism.
8. Urea cycle.

III. Short answer on:

(10X3=30)

1. Name the parts of uterus.
2. Types of Neurons.
3. Name the Ear ossicles.
4. Name the parts of the brain stem.
5. Name any four clotting factors.
6. Glomerular Filtration Rate (GFR).
7. Balanced diet.
8. Basal metabolic rate.
9. Name the hormones secreted by pituitary gland.
10. Write about Pellagra.

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

[AHS 1122]

NOVEMBER 2022

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR (Regulations 2010-2011 & 2014-2015)
PAPER I – ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
Q. P. Code: 801601**

Time: Three hours

Maximum : 100 Marks

Answer ALL Questions

I. Elaborate on:

(3 x 10 = 30)

1. Classify Joints. Explain in detail about shoulder joint.
2. Define Menarche. Explain in detail about different phases of menstrual cycle and the hormones influencing menstrual cycle.
3. Define and classify enzymes with suitable examples. Explain in detail about factors affecting enzyme activity.

II. Write notes on:

(8 x 5 = 40)

1. Bronchopulmonary segments with diagram.
2. What are the coverings of the kidney?
3. Types and functions of Simple epithelium.
4. Neuromuscular Junction.
5. Composition and functions of saliva.
6. Name the different types of blood groups and its significance.
7. Requirement and functions of Vitamin A.
8. Classification of fatty acids.

III. Short answers on:

(10 x 3 = 30)

1. Name three Cranial nerves.
2. Muscles of Respiration.
3. Mentions the functions of tongue.
4. Columnar Epithelium.
5. Mention the functions of thyroid hormone.
6. Write the functions of cerebellum.
7. Body fluid compartments.
8. Name three clotting factors.
9. Vitamin C – Sources and its deficiency.
10. Importance of HDL and LDL.

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

[AHS 0423]

APRIL 2023

Sub. Code: 1601

**B.Sc. PHYSICIAN ASSISTANT
FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2019-2020 onwards)
PAPER I – ANATOMY, PHYSIOLOGY & BIOCHEMISTRY
Q.P. Code:. 801601**

Time: Three hours

Maximum :100 Marks

Answer All questions

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

1. Name the parts of the Gastro-intestinal tract and write in detail about Stomach.
2. Write in detail about Cardiac Cycle.
3. Describe the classification of Amino-acids and its functions with suitable example.

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

1. Structure of Kidney.
2. Blood brain barrier.
3. Anatomy of Thyroid gland.
4. Classification of Joints.
5. Electrocardiogram (ECG).
6. Classification of Anemia.
7. Classification of Protein.
8. Factors affecting the Enzyme activity.

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

1. Cause and clinical manifestations of Beriberi.
2. Name the hormones which regulate the Glycogen Metabolism.
3. Define pH, Molarity and Molality.
4. Name the Polysaccharides.
5. Functions of Cerebellum.
6. Blood Pressure.
7. Name three Cranial nerves.
8. Name the parts and length of the male Urethra.
9. Name the layers of the Eyeball.
10. Mention the functions of the Liver.

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

[AHS 1123]

NOVEMBER 2023

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2019-2020 onwards)

PAPER I – ANATOMY, PHYSIOLOGY & BIOCHEMISTRY

Q.P. Code: 801601

Time: Three hours

Maximum :100 Marks

Answer All questions

I. Elaborate on:

(3 X 10 = 30)

1. Explain in detail with the help of a neat labelled diagram the formation of Brachial plexus and its branch. Add a note on Carpal Tunnel syndrome.
2. Write in detail about Cardiac cycle.
3. Write in detail the Metabolism of Glucose.

II. Write short notes on:

(8 X 5 = 40)

1. Deltoid muscle.
2. Thyroid gland.
3. Oogenesis.
4. Types of shock.
5. Classify and write briefly on hypoxia and its types.
6. Explain the reflex arc with the help of a diagram.
7. Balanced diet.
8. Sick cell anaemia.

III. Short answer on:

(10 X 3 = 30)

1. Name the ventricles of the brain.
2. Ear ossicles.
3. Openings of the diaphragm.
4. Vital capacity.
5. Types of Muscles.
6. List four functions of stomach.
7. Thyroid hormones.
8. Mitochondria.
9. Any four renal function tests.
10. Urea cycle.

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

[AHS 0424]

APRIL 2024

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2019-2020 onwards)

PAPER I – ANATOMY, PHYSIOLOGY & BIOCHEMISTRY

Q.P. Code: 801601

Time: Three hours

Answer All questions

Maximum :100 Marks

I. Elaborate on:

(3 X 10 = 30)

1. Draw a neat labeled diagram of the Clavicle. Discuss in detail about the joints formed by it and muscles attached to it.
2. Define Menstrual cycle. Describe the phases and hormones influencing it.
3. Discuss the role of Kidney in regulation of Acid base balance.

II. Write short notes on:

(8 X 5 = 40)

1. Circle of Wills.
2. Radial nerve.
3. Spermatogenesis.
4. Conducting system of Heart.
5. Active transport mechanism.
6. Functions of Plasma proteins.
7. Detoxification.
8. Water balance in the body.

III. Short answer on:

(10 X 3 = 30)

1. Erb's point.
2. Hilar structures of the Lung.
3. Name the muscles of Mastication.
4. Name the Meninges of the brain.
5. Referred pain.
6. Abnormal constituents of Urine.
7. Difference between sympathetic and parasympathetic nervous system.
8. Muscles of Respiration.
9. Ketone bodies.
10. List any four functions of Calcium.

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

[AHS 1125]

NOVEMBER 2025

Sub. Code: 1601

B.Sc. PHYSICIAN ASSISTANT

FIRST YEAR (Regulations 2010-2011, 2014-2015 & 2019-2020 onwards)

PAPER I– ANATOMY, PHYSIOLOGY & BIOCHEMISTRY

Q.P. Code: 801601

Time: Three hours

Answer All questions

Maximum :100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Draw a neat diagram of the Scapula, label its parts and explain its features and muscle attachment.
2. List the glands of the Endocrine system. Explain in detail the functions of the Thyroid Hormone.
3. Write in detail the Metabolism of Fat.

II. Write short notes on:

(8 x 5 = 40)

1. Movements of shoulder joint.
2. Median nerve.
3. Gluteus muscles.
4. Electrocardiography (ECG).
5. Renin angiotensin mechanism.
6. Functions of Cerebellum.
7. Biochemical functions of Vitamin A.
8. Classify Carbohydrates with examples.

III. Short answer on:

(10 x 3 = 30)

1. List the parts of the large intestine.
2. Deltoid muscle.
3. List the parts of the hip bone.
4. Synapse.
5. Functions of Kidney.
6. Cardiac output.
7. Male contraceptive methods.
8. Define Vitamins and their classification.
9. Name three Unsaturated Fatty acids.
10. Name the three diagnostic tests for Kidney.
