[LP 0819] AUGUST 2019 **Sub. Code: 1131**

B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

(New Syllabus 2018-2019)

FIRST YEAR

PAPER I – BASIC SCIENCES

Q.P. Code: 801131

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

Answer All Questions.

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

1. Classification of Bone with suitable diagrams and Examples.
2. Explain in detail about the Chambers of the Heart.
3. Write the Composition of Blood and its Functions.

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

1. Intercostal Space.
2. Neuro Muscular Junction.
3. Functions of the CSF.
4. Classifications of Protein.
5. Vertebral Column.
6. Menstrual Cycle.
7. Broncho - Pulmonary Segment.
8. Thyroid Gland.

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

1. Functions of plasma.
2. Sagittal Plane.
3. Draw and Label the diagram of Typical Rib.
4. Buffers.
5. Hyperkalemia.
6. Functions of Vitamin-K.
7. Parts of the Pharynx.
8. Write the Origin and insertion of Deltoid.
9. Essential Amino Acids.
10. Functions of the Peritoneum.

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[LQ 0220] FEBRUARY 2020 **Sub. Code: 1131**

B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

(New Syllabus 2018-2019)

FIRST YEAR

PAPER I – BASIC SCIENCES

Q.P. Code: 801131

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

Answer All Questions.

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

1. Protein Energy Malnutrition.
2. Draw and Label a neat diagram of Animal cell, Write the functions of the cell organelles.
3. Explain about the Movements of Respiration.

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

1. Pericardium.
2. Basal Metabolic Rate.
3. Clotting Mechanism.
4. General Characteristics features of Inflammation.
5. Functions of skin.
6. Auscultatory Areas.
7. Valves of the Heart.
8. Urinary Bladder.

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

1. Name the layers of GIT.
2. Write the Blood supply and Nerve supply of the Diaphragm.
3. Differences between male and female pelvis.
4. Name the structures involves in the formation of Thoracic Cage.
5. Draw and Label the Sternum.
6. Endocytosis.
7. Tidal Volume.
8. Name the hormones secreted by Pancreas.
9. Draw and Label the diagram of Nephron.
10. Functions of Calcium.

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

[AHS 0321] MARCH 2021 Sub. Code: 1131

(AUGUST 2020 EXAM SESSION)

B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

FIRST YEAR (From 2018-2019 onwards)

PAPER I – BASIC SCIENCES

Q.P. Code : 801131

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

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

1. Explain in detail about Cardiac Cycle.
2. Draw a neat diagram of a Kidney and Explain in detail about the structure of the kidney.
3. Fat soluble vitamins.

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

1. Functions of Bone.
2. Pancreas.
3. Diaphragm.
4. Male urethra.
5. Composition of Blood.
6. Hypertension.
7. Surfactants.
8. Erb's Palsy.

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

1. Intervertebral disc.
2. Blood supply of the Heart.
3. Functions of Mitochondria.
4. Draw and Label the diagram of Neuron.
5. Landsteiner's Law.
6. Functions of Vitamin – C.
7. Parts of the small intestine.
8. Waves of Electro cardiogram.
9. Glomerular Filtration Rate.
10. Phases of Menstrual cycle.

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

[AHS 0422] APRIL 2022 Sub. Code: 1131

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSIONS)

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY

FIRST YEAR (From 2018-2019 onwards)

PAPER I – BASIC SCIENCES

Q.P. Code: 801131

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

Answer All questions

I. Elaborate on : (3X10=30)

1. Draw a neat diagram of Scapula, label its parts and explain its features and muscle attachments.
2. List out the glands of Endocrine system. Explain in detail the functions of Thyroid Hormone.
3. Describe about the cell under the following headings with suitable diagrams: a) Structure and functions of cell membrane b) Mitochondria c) Golgi apparatus d) Lysosomes.

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

1. Write the functions of Platelets.
2. Sleep cycle.
3. Functions of the posterior pituitary hormones.
4. Explain the factors affecting enzyme activity.
5. Pleural recesses.
6. Anatomy of ureter.
7. Biceps brachii.
8. Erythroblastosis fetalis.

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

1. Reducing property of monosaccharides.
2. Tributaries of coronary sinus.
3. Essential fatty acids.
4. Define: (a) Normality (b) Molarity (c) Molality
5. Functions of endoplasmic reticulum.
6. How many Carpal Bones are there in the wrist? Name them.
7. Name the structures forming Waldeyer's ring.
8. Cyanosis.
9. Lipoproteins.
10. Name the salivary glands.

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

[AHS 1122] **NOVEMBER 2022** **Sub. Code: 1131**

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
FIRST YEAR (Regulation 2018-2019)
PAPER I – BASIC SCIENCES
Q. P. Code: 801131

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

Answer ALL Questions

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

1. Define cardiac output. Explain the factors regulating cardiac output.
2. Describe in detail about the mechanism of regulation of blood pH.
3. Describe the Shoulder Joint under the following headings:
   a) Articular surfaces b) Ligaments c) Relations
   d) Muscles attached e) Applied Anatomy.

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

1. Waves in ECG.
2. Structure and functions of Kidney.
3. Muscles of thorax.
4. Blood groups and Rh factor.
5. Cardiopulmonary Resuscitation.
6. Water soluble vitamins.
7. Phases of menstrual cycle.
8. Reversible and Irreversible Cell Injury.

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

1. Pleura.
2. Lysosomes.
3. Functions of Hemoglobin.
4. Basal metabolic rate.
5. Enumerate the bones of upper limb.
6. Role of bile in digestion.
7. Isoenzymes.
8. Cell death.
9. Define blood pressure.
10. Carcinogenic agents.

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

[AHS 0423] **APRIL 2023** **Sub. Code: 1131**

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
FIRST YEAR (Regulation 2018-2019 onwards)
PAPER I – BASIC SCIENCES
Q.P. Code: 801131

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

Answer All questions

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

1. Explain in detail about the classification of Enzymes and describe the factors affecting the Enzyme activity.
2. Classify Joints. Describe the different types of Synovial joints with suitable examples.
3. Elaborate on Animal Cell structure with a neat labelled diagram and mention about the functions of the various Cell Organelles.

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

1. Chronic inflammation.
2. Chambers of the Heart.
3. Vitamin A.
4. Benign and Malignant neoplasms.
5. Functions of Thyroid hormones.
6. Classification of Proteins.
7. Muscles of Thorax.
8. Surfactants.

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

1. Define (i) pH (ii) Buffers.
2. Normal urinary output.
3. Cartilage.
4. Type I hypersensitivity reaction.
5. Electro Cardiogram (ECG).
6. Basal Metabolic Rate.
7. Functions of Neutrophils.
8. Heart Sounds.
9. Anatomy of Urinary Bladder.
10. Functions of Cerebral cortex.

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

[AHS 1123] **NOVEMBER 2023** **Sub. Code: 1131**

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
FIRST YEAR (Regulation 2018-2019 onwards)
PAPER I – BASIC SCIENCES
Q.P. Code: 801131

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

Answer All questions

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

1. Describe the Anatomical position, External features and Chambers of the Heart in detail with suitable diagram.
2. Explain in detail about Acute and Chronic Inflammation.
3. Define Cardiac Output. Discuss in detail about the various factors affecting it.

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

1. Vitamin D.
2. Structure of Kidney.
3. Define BMR and explain the factors affecting BMR.
4. Hypersensitivity reactions – Type IV.
5. Classification of Proteins.
6. Neuromuscular junction.
7. Hip joint.
8. Phases of Menstrual cycle.

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

1. Brachialis Muscle.
2. Cell injury.
3. Functions of Plasma.
4. Balance diet.
5. Pulse Oximeter.
6. Functions of Calcium.
7. Intercostal space.
8. Exocytosis.
9. Henderson-Hasselbalch equation.
10. Erythrocyte Sedimentation Rate.

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

[AHS 0424] **APRIL 2024** **Sub. Code: 1131**

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
FIRST YEAR (Regulation 2018-2019 onwards)
PAPER I – BASIC SCIENCES
Q.P. Code: 801131

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

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

1. Draw a neat diagram of Scapula, label its parts and explain its features and Muscle attachments.
2. List out the Glands of Endocrine system. Explain in detail the synthesis and functions of Thyroid hormone.
3. Classify Lipids with suitable examples. Discuss in detail the metabolism of Lipids.

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

1. Functions of Platelets.
2. What are Benign and Malignant neoplasms?
3. Functions of the posterior pituitary hormones.
4. Explain the factors affecting enzyme.
5. Pleural recesses.
6. Anatomy of Ureter.
7. Lung volumes and capacities.
8. Erythroblastosis fetalis.

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

1. Auscultatory areas of Heart.
2. Tributaries of Coronary sinus.
3. Essential fatty acids.
4. Define: (a) Normality (b) Molarity (c) Molality.
5. Functions of lysosomes.
6. Clinical features of Tumours.
7. Name three parasitic infections.
8. What are Surfactants?
9. Name the Renal Function test.
10. Draw a neat labelled diagram of a Neuron.

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

[AHS 1125] **NOVEMBER 2025** **Sub. Code: 1131**

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
FIRST YEAR (Regulation 2018-2019 onwards)
PAPER I – BASIC SCIENCES
Q.P. Code: 801131

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

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

1. Describe the general features of the immune system. Explain in detail about the hypersensitivity reactions.
2. Define Cardiac output. Explain the factors regulating Cardiac output.
3. Classify Enzymes and describe in detail the factors affecting enzymes activity.

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

1. Muscles of the thorax.
2. Marasmus and Kwashiorkor.
3. Blood groups and Rh factor.
4. Anatomy of ureter.
5. Co-enzymes.
6. Functions of CSF.
7. Deficiency manifestations of Vitamin B1.
8. Enteric fever.

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

1. Balanced diet.
2. Parts of the Pharynx.
3. Define a) Normality b) Molarity c) Molality.
4. Fibrous Proteins.
5. Draw a neat diagram of nephron and label the parts.
6. Types of fibrous joint.
7. Endocytosis and Exocytosis.
8. Structures forming Waldeyer's ring.
9. Functions of Haemoglobin.
10. TORCH infections.

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