

**DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY,
DIPLOMA IN CRITICAL CARE TECHNOLOGY &
DIPLOMA IN SCOPE SUPPORT TECHNOLOGY**

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code : 841101

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order

I. Elaborate on:

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

- | | | | |
|--|---|---------|----|
| 1. List out all the Cranial nerves. Write a detailed note on Human Brain. | 7 | 20 min. | 10 |
| 2. Describe in detail about the Electrical activity of the Heart. Add a note on Electrocardiogram. | 7 | 20 min. | 10 |
| 3. Write in detail about all the fat soluble Vitamins. | 7 | 20 min. | 10 |

II. Write notes on:

- | | | | |
|-------------------------|---|--------|---|
| 1. Cerebrospinal fluid. | 4 | 9 min. | 5 |
| 2. Nephron. | 4 | 9 min. | 5 |
| 3. Scalp. | 4 | 9 min. | 5 |
| 4. Tongue. | 4 | 9 min. | 5 |
| 5. Parathyroid gland. | 4 | 9 min. | 5 |
| 6. Lead. | 4 | 9 min. | 5 |
| 7. Breast. | 4 | 9 min. | 5 |
| 8. Gastronemius muscle. | 4 | 9 min. | 5 |
| 9. Oxytocin. | 4 | 9 min. | 5 |
| 10. Mediastinum. | 4 | 9 min. | 5 |

III. Short Answers on

- | | | | |
|---|---|--------|---|
| 1. Name two cranial nerves supplying the eye. | 1 | 3 min. | 2 |
| 2. Name the disorders due to Niacin deficiency. | 1 | 3 min. | 2 |
| 3. Mention any two contents of femoral canal. | 1 | 3 min. | 2 |
| 4. Name the membranes covering the Heart. | 1 | 3 min. | 2 |
| 5. Define Hypermetropia. | 1 | 3 min. | 2 |
| 6. What is surfactant? | 1 | 3 min. | 2 |
| 7. What is Cartilage? | 1 | 3 min. | 2 |
| 8. Name any two sources of Vitamin C. | 1 | 3 min. | 2 |
| 9. Mention any two functions of cerebellum. | 1 | 3 min. | 2 |
| 10. What is the function of Rods in the eye? | 1 | 3 min. | 2 |

**DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY,
DIPLOMA IN CRITICAL CARE TECHNOLOGY &
DIPLOMA IN SCOPE SUPPORT TECHNOLOGY
FIRST YEAR**

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code : 841101

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Heart – surfaces , borders , chambers , valves and applied anatomy.
2. Spermatogenesis.
3. Enzymes – definition , nomenclature and classification.

II. Write notes on:

(10 x 5 = 50)

1. Intercostal space.
2. Right kidney.
3. Scapula.
4. Triceps muscle.
5. Formation of platelets and normal level.
6. Role of bile in digestion.
7. Functions of cerebrospinal fluid.
8. Calcium metabolism.
9. Bicarbonate buffer system.
10. Glycogen storage diseases.

III. Short Answers on:

(10 x 2 = 20)

1. Divisions of pleura.
2. Name the branches of aorta.
3. Name the flexors of fore arm.
4. Parts of typical rib.
5. Erythrocyte Sedimentation Rate.
6. Acidosis.
7. Functions of pancreatic hormones.
8. Structure of cholesterol.
9. Benedict's test.
10. Fat soluble vitamins.

**DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY,
DIPLOMA IN CRITICAL CARE TECHNOLOGY &
DIPLOMA IN SCOPE SUPPORT TECHNOLOGY
FIRST YEAR**

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code : 841101

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

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

1. Draw the structure of cell and label it. Explain in detail about various cell organelles.
2. Classify proteins. Add a note on structure of protein.
3. Draw and label the different parts of brain. Explain the different coverings and space of brain.

II. Write notes on: **(10 x 5 = 50)**

1. Types and functions of plasma protein.
2. Types and functions of WBC.
3. Rh incompatibility.
4. Difference between kwashiorkor and marasmus.
5. Vitamin D.
6. Functions of Vitamin K.
7. Cerebro - spinal fluid.
8. Functions of synovial fluid.
9. Lipoprotein.
10. Type of muscle.

III. Short Answers on: **(10 x 2 = 20)**

1. Name 2 example of ball & socket joints.
2. Hemoglobin.
3. Types of RNA.
4. Phagocytosis.
5. Packed cell volume (PCV).
6. Name 3 amino acids.
7. Write the name of different lobe of right lung.
8. Define granulocytosis.
9. Beriberi.
10. Steatorrhea.

[LE 0212]

FEBRUARY 2014

Sub. Code: 1101

**DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY,
DIPLOMA IN CRITICAL CARE TECHNOLOGY &
DIPLOMA IN SCOPE SUPPORT TECHNOLOGY
FIRST YEAR**

PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code : 841101

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the parts of respiratory system? Explain the mechanism of gas exchange in the lungs?
2. What are the parts of brain? Describe the formation & function of cerebrospinal fluid?
3. Classify lipids. Describe their functions. Add a note on fat soluble Vitamins.

II. Write notes on:

(10 x 5 = 50)

1. Liver.
2. Composition and functions of blood.
3. Digestion of food in the stomach.
4. Blood supply to the heart.
5. Platelets.
6. Electrocardiogram.
7. Hormones secreted by the adrenal gland and their functions.
8. Hip bone.
9. Myocardium.
10. Nephron.

III. Short Answers on:

(10 x 2 = 20)

1. Endocytosis.
2. Respiratory quotient.
3. Name four causes of anemia.
4. Biceps muscle.
5. Urinary bladder.
6. Define blood pressure.
7. Name the bones forming the knee joint.
8. What is cardiopulmonary resuscitation (CPR).
9. Morality.
10. Mitochondria.
