

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

[BHMS 1124]

**NOVEMBER 2024
(SUPPLEMENTARY SESSION EXAMINATION)**

Sub. Code: 1604

**FIRST PROFESSIONAL B.H.M.S. DEGREE EXAMINATION
(For the candidates admitted from the academic year 2022-2023 onwards)
PAPER IV – (HomUG-PB) HUMAN PHYSIOLOGY AND BIOCHEMISTRY - I**

Q.P. Code: 581604

Maximum: 100 Marks (90 Theory + 10 MCQS)

Time: Three Hours

Answer ALL questions

II. Short Answer Questions:

(8x5=40)

1. Describe the functions of cell.
2. Diffusion.
3. Fate of RBC.
4. Heart sounds with their measurement techniques.
5. Discuss non -respiratory functions of Respiratory system.
6. Renin angiotensin mechanism.
7. Describe the glands of Skin.
8. Neuro muscular transmission.

III. Long Answer Questions:

(5x10=50)

1. Define coagulation of blood. Name the clotting factor and the mechanism involved in coagulation of blood.
2. Define Anemia and the types of Anemia. Explain sickle cell Anemia.
3. Physiological Properties of Cardiac muscle.
4. Explain the mechanism of Respiration.
5. Explain mechanism of Micturition.

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

[BHMS 0325]

MARCH 2025

Sub. Code: 1604

FIRST PROFESSIONAL B.H.M.S. DEGREE EXAMINATION

(Candidates admitted for the academic year 2023-2024 batch)

(New Regulation - 2022-2023)

PAPER IV – (HomUG-PB) HUMAN PHYSIOLOGY AND BIOCHEMISTRY - I

Q.P. Code: 581604

Maximum: 100 Marks (90 Theory + 10 MCQS)

Time: Three Hours

Answer ALL questions

II. Short Answer Questions:

(8x5=40)

1. List the name of Intracellular Junctions and discuss their importance.
2. Define and discuss the terms Filtration and Ultrafiltration.
3. Explain Physiological Jaundice.
4. Discuss the clinical importance of murmur and triple Heart sound.
5. Define Surface tension and discuss the significance of Surfactant.
6. Describe the counter current multipliers.
7. Discuss layers of skin with their functions.
8. Illustrate the structure of Neuromuscular junction.

III. Long Answer Questions:

(5X10=50)

1. Define Erythropoiesis. List the different stages of Erythropoiesis changes during each stage and factors essential for it.
2. Classify the ABO blood group system.
3. Define Cardiac Output. Discuss in detail the control mechanism of Cardiac Output.
4. Explain Pulmonary function test and its measurement using spirometer.
5. a) Define GFR.
b) What are the factors influencing GFR?

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

[BHMS 0725]

JULY 2025

Sub. Code: 1604

(SUPPLEMENTARY EXAMINATION)

FIRST PROFESSIONAL B.H.M.S. DEGREE EXAMINATION

(New Regulation –From 2022-2023 Batch onwards)

PAPER IV – (HomUG-PB) HUMAN PHYSIOLOGY AND BIOCHEMISTRY - I

Q.P. Code: 581604

Maximum: 100 Marks (90 Theory + 10 MCQS)

Time: Three Hours

Answer ALL questions

II. Short Answer Questions:

(8x5=40)

1. Explain the Regulation of Internal Environment.
2. Explain Donnan Equilibrium.
3. What is the significance of Blood Grouping? Explain Rhesus Blood group.
4. Define Electrocardiogram; draw a normal ECG explaining its waves and intervals.
5. What is the significance of different parts of lower respiratory tract?
6. Define Nephron, classify it and differentiate the types of Nephron with diagram.
7. Relate the structure of different glands of skin with their functions.
8. Explain excitability and contractility of skeletal muscle.

III. Long Answer Questions:

(5x10=50)

1. Explain the forms and functions of Plasma Proteins.
2. Explain the different types of Immunity.
3. Define Blood pressure. State the factors affecting arterial Blood Pressure.
4. Draw a diagram of respiratory centre. Explain the nervous regulation of respiration.
5. Explain the renal regulation of acid base balance.
