

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

[BHMS 1124]

NOVEMBER 2024

Sub. Code: 1604

(SUPPLEMENTARY SESSION EXAMINATION)

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

Time: 15 Minutes

Answer ALL questions

Maximum: 10 Marks

Choose one correct answer in the box provided in the Answer Script. No overwriting should be done. Choice should be given in Capital Letters.

I. Multiple Choice Questions:

(10 x 1 = 10)

1. The process of cell drinking is termed as -----
A) Pinocytosis B) Osmosis C) Diffusion D) Phagocytosis
2. Which of the following is not an energy requiring process to move substances through the cell membrane?
A) Carrier type process B) Na-K pump C) Osmosis D) Iodide pump
3. Over administration of Hypertonic saline is leads to increase the ECF volume and plasma volume -----
A) Hyper osmotic Volume expansion B) Iso- Osmotic Volume expansion
C) Hypo osmotic Volume expansion D) Hyper- osmotic dehydration
4. Spontaneous release of acetylcholine at Neuromuscular junction produces-----.
A) Miniature end plate potential B) Action potential
C) Post-tetanic potential D) Resting membrane potential
5. The substance which is not filtered in pulmonary circulation -----
A) Blood Clots B) Cancer Cells C) Plasma proteins D) Gas bubbles
6. Closure of semilunar valves occurs during -----
A) Isometric ventricular contraction phase B) Rapid Ejection phase
C) Protodiastolic phase D) Isometric ventricular relaxation phase.
7. Hydrostatic pressure is highest in capillaries of -----
A) Brain B) Kidney C) Liver D) Lungs
8. The primary active transporter in the kidney includes all except,
A) $\text{Na}^+ - \text{K}^+$ ATPase B) $\text{H}^+ - \text{K}^+$ ATPase
C) Ca^{2+} ATPase D) Na Channel

P.T.O.

9. Most body odor is result of bacterial metabolism of the secreting produced by -----

A) Apocrine gland

B) Sebaceous gland

C) Ceruminous gland

D) Eccrine gland

10. Regulatory protein in skeletal muscle contraction is -----.

A) Acetylcholine

B) Bradykinin

C) Tropomyosin

D) Histamine

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

Time: 15 Minutes

Answer ALL questions

Maximum: 10 Marks

Choose one correct answer in the box provided in the Answer Script. No overwriting should be done. Choice should be given in Capital Letters.

I. Multiple Choice Questions:

(10 x 1 = 10)

1. Which cell organ is known as the power house of the cell?
A) Ribosome B) Mitochondria C) Lysosome D) Nucleus
2. Smallest fluid compartment of body is -----.
A) Intracellular B) Extracellular C) Transcellular D) Interstitial
3. Na^+ , K^+ ATP ases helps in the maintenance of which of the following?
A) Intra cellular PH B) Cell Volume
C) Low extra cellular sodium D) Increase in plasma Na^+ concentration
4. Long QT syndrome, a rare inherited tendency to epileptic seizures in the New born -----
A) Chloride – channel disease B) Pottassium – channel disease
C) Sodium – Channel disease D) None of the above
5. Helper T_4 Lymphocytes cause proliferation of -----.
A) Neutrophils in bone marrow B) B-Lymphocytes
C) Tissue Macrophages D) Plasma Cells
6. Compared to systemic circulation, pulmonary circulation is a -----
A) Low pressure system B) Low flow system
C) High resistance system D) High pressure system
7. Spirometry measures all except:
A) Vital capacity B) Inspiratory Reserve Volume
C) Functional residual capacity D) Functional residual volume
8. Urinary concentrating ability of kidney is increased by -----.
A) ECFV contraction B) Reduction in Medullary hypertension
C) Increased RBF D) Increase in GFR

9. What is the Primary mechanism by which the body cools itself through the skin?
A) Conduction B) Convection C) Evaporation D) Radiation

10. Contractile unit of a muscle is called -----.

- | | |
|---------------|---------------------------|
| A) Sarcolemma | B) Sarcomere |
| C) Sarcoplasm | D) Sarcoplasmic reticulum |

7. Functional Residual capacity of lung is -----
A) 500 ml B) 2200 ml C) 1000 ml D) 1500 ml
8. Which of the following substances are not reabsorbed by the kidneys?
A) Creatinine B) Salts C) Amino acids D) none of the above
9. What Physiological response occurs in the skin during exposure to high temperature?
A) Vaso constriction B) Piloerection
C) Vasodilatation D) Decreased sweating
10. Contractile proteins of muscles are -----
A) Troponin B) Actin & Myosin C) Dystropin D) Calmodulin
