

The West Bengal University of Health Sciences

1st BMLT December, 2025 - January, 2026 Examination

Subject : Basics of Human Anatomy and Basics of Human Physiology

Time: 3 Hours

Full Marks: 100

Anatomy

Attempt all questions

1. Choose the most appropriate option : 10 x 1
 - a) Largest organ of human body :
 - i) Brain. ii) Heart. iii) Spinal nerve. iv) Skin.
 - b) Salivary gland is an example of :
 - i) Endocrine glands. ii) Mixed gland. iii) Exocrine glands. iv) All of these.
 - c) The muscles of _____ helps the blood to enter into the heart.
 - i) Ventricular relaxation. ii) Atria contraction.
 - iii) Atria relaxation. iv) Ventricular contraction.
 - d) Mitral valve is present between :
 - i) Right atrium and left ventricle. ii) Right and left ventricle.
 - iii) Left ventricle and aorta. iv) Left atrium left ventricle.
 - e) The organ of respiratory system that is kept open by ring of cartilage is the :
 - i) Nose. ii) Pharynx. iii) Trachea. iv) Larynx.
 - f) Longest portion of small intestine is :
 - i) Duodenum. ii) Jejunum. iii) Colon. iv) Ileum.
 - g) The structure that connects a kidney to the urinary bladder is :
 - i) Ureter. ii) Urethra. iii) Renal pelvis. iv) Collecting duct.
 - h) Which of the following is the largest salivary gland?
 - i) Parotid. ii) Sublingual. iii) Liver. iv) Sub mandible.
 - i) The functional unit of the kidney is called :
 - i) Nephron. ii) Alveolus. iii) Neuron. iv) Lobule.
 - j) Cardiac Sphincter is found in :
 - i) Oesophagus. ii) Pancreas. iii) Cardiovascular system. iv) Stomach.

2. Write short notes on **any four** of the following : 4 x 5
 - a) Difference between exocrine and endocrine gland.
 - b) Liver.
 - c) Lungs.
 - d) Spermatogenesis.
 - e) Plasma membrane.
 - f) Nephron.

3. Answer **any two** from the following :
 - a) Define urinary system. Explain external and internal structure of kidney. 2+4+4
 - b) Define Tissue. State classification of epithelial tissue with their location. 2+4+4
 - c) What is Renal Podocyte? Describe the internal anatomy of kidney. What is GFR? 2+6+2

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Physiology

Attempt all questions

1. Tick the correct answer : 10 x 1
- a) Lipase is an enzyme for digestion of :
 i) Carbohydrate. ii) Protein. iii) Fat. iv) All the above.
- b) Tidal volume of lung is :
 i) 1200 ml. ii) 1000 ml. iii) 800 ml. iv) 500 ml.
- c) Which is the 'Master gland' of our body?
 i) Liver. ii) Hypothalamus. iii) Pituitary. iv) Adrenal.
- d) Cardiac output is equal to :
 i) Stroke volume x Blood pressure. ii) Stroke volume x Heart rate.
 iii) Heart rate x Cardiac index. iv) None of these.
- e) Pacemaker of heart is :
 i) SA node. ii) AV node. iii) Bundle of His. iv) Purkinje fiber.
- f) Which of the following is an endocrine gland?
 i) Sweat gland. ii) Sebaceous gland. iii) Breast. iv) Pancreas.
- g) Length of male urethra is :
 i) 10-12 cm. ii) 18-20 cm. iii) 4-6 cm. iv) 25-27 cm.
- h) Blood is purified in :
 i) Kidney. ii) Heart. iii) Lung. iv) Liver.
- i) Hemoglobin is having maximum affinity for :
 i) CO. ii) O₂. iii) CO₂. iv) None of these.
- j) Which organ only receives oxygenated blood?
 i) Lung. ii) Liver. iii) Gill. iv) Spleen.
2. Write short notes on **any four** of the following : 4 x 5
- a) Oxyhemoglobin dissociation curve.
 b) Myxedema.
 c) Glomerular filtration rate.
 d) Composition & function of lymph.
 e) Chloride shift.
 f) Special junctional tissue of heart.
3. Answer **any two** from the following :
- a) What is cardiac cycle? Describe the different stages of cardiac cycle. Write the significance of second heart sound. 1+7+2
- b) Write the classification of hormone. Describe the secretion and function of thyroid gland. What is thyrotoxicosis? 5+4+1
- c) Briefly describe the structure and function of nephron with a labelled diagram. 10