

Roll No. 212604124025

2041174(041)

D. Pharmacy (First Year)
EXAMINATION, April-May, 2025

(Scheme : PCI)

(Branch : Pharmacy)

HUMAN ANATOMY AND PHYSIOLOGY

Time : Three Hours] [Maximum Marks : 80

Note : This question paper contains three Parts.

- (i) Part I contains 20 multiple choice questions. Each question carries 1 mark. All questions are compulsory.
- (ii) Part II contains 11 short answer type questions. Each question carries 3 marks. Attempt any *ten* questions.
- (iii) Part III contains 7 long answer type questions. Each question carries 5 marks. Attempt any *six* questions.

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10. During which process, heat energy is formed ?

- (a) Excretion
- (b) Digestion
- (c) Respiration
- (d) Circulation

11. Which of the following parts is known as the sound box of our body system ?

- (a) Vocal gland
- (b) Pharynx
- (c) Larynx
- (d) Nasopharynx

12. Which of the following organs is affected by the illness cirrhosis ?

- (a) Kidney
- (b) Liver
- (c) Pancreas
- (d) Small intestine

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13. The two principal contractile proteins in skeletal muscles are :

- (a) Actin and Troponin
- (b) Actin and Tropomyosin
- (c) Actin and Myosin
- (d) Myosin and Tropomyosin

14. Name the basic structural and functional unit of the nervous system :

- (a) Neuroglia
- (b) Glial cells
- (c) Neurons
- (d) Perikaryon

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5. Which of the following is the function of white blood cells ?

- (a) Transport oxygen
- (b) Maintain homeostasis
- (c) Defend against infection
- (d) Produce haemoglobin

6. Human blood types in the ABO blood group are identified by :

- (a) Clotting factors in plasma
- (b) Microscopic examination of white blood cells
- (c) Antigen-antibody reactions
- (d) Series of enzyme controlled reactions

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7. One of the following is not a lymphatic organ :

- (a) Pancreas
- (b) Spleen
- (c) Thymus
- (d) Tonsils

8. Which of the following is the largest artery of the human body ?

- (a) Coronary arteries
- (b) Pulmonary artery
- (c) Aorta
- (d) None of the above

9. What is the normal pH of human blood ?

- (a) 7.4
- (b) 7.2
- (c) 7.8
- (d) 6.5

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Part—I

(Multiple Choice Questions)

Note : Attempt all questions. Each question carries 1 mark.

20×1=20

1. Which statement is correct ?
 - (a) The knee is proximal to the hip.
 - (b) The hip is proximal to the knee.
 - (c) The shoulder is distal to the elbow.
 - (d) The knee is distal to the ankle.
2. The functional unit of life is called :
 - (a) Cell
 - (b) Nucleus
 - (c) Neurons
 - (d) Nerves

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3. The connective tissue that connects muscle to bone is called :

- (a) Ligament
- (b) Tendon
- (c) Nervous tissue
- (d) All of the above

4. Which of these is not a function of the skeletal system ?

- (a) Mineral storage
- (b) Protection of organs
- (c) Movement
- (d) Metabolism

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2. What is tissue ? Classify it. Discuss in detail about epithelial tissue.
3. Explain the composition, function and disorder of blood.
4. Explain anatomy and physiology of heart.
5. Write a note on digestive system. Explain various parts of digestive system.
6. Draw neat and clean diagram of nephron and explain its role in urine formation.
7. Explain spermatogenesis with a suitable diagram.

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20. Which layer is the top or uppermost layer of the epidermis ?

- (a) Dermis
- (b) Stratum corneum
- (c) Stratum mucosum
- (d) Stratum granulosum

Part-II

(Short Answer Type Questions)

Note : Attempt any *ten* questions out of eleven questions. Each question carries 3 marks. $10 \times 3 = 30$.

1. Write the scope of Anatomy and Physiology.
2. Write a note on thyroid gland.
3. Write a note on Anatomy and Physiology of eye.
4. What is nervous system ? Classify it.

5. Write the structure and function of spinal cord.

6. Write the structure and function of skin.

7. Write a note on blood group.

8. Write a note on Regulation of Respiration.

9. Write about blood pressure and its regulation.

10. Write about composition and function of lymphatic system.

11. Write about types and movement of joints.

Part-III

(Long Answer Type Questions)

Note : Attempt any *six* questions out of seven questions. Each question carries 5 marks. $6 \times 5 = 30$

1. What is cell ? Explain the structure and function of cell.

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15. What is Sciera ?

- (a) Cornea
- (b) White part of the eye
- (c) Red part of the eye
- (d) Lens

16. The kidney structure in which urine is formed is known as :

- (a) Calyx
- (b) Nephron
- (c) Neuron
- (d) Nephridium

17. Which of these is not an endocrine gland ?

- (a) Pancreas
- (b) Testes
- (c) Salivary gland
- (d) Parathyroid

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18. Which is not a function of the hypothalamus ?

- (a) Affect heart rate
- (b) Control temperature
- (c) Affect water balance
- (d) Secrete FSH

19. What is the tympanic membrane also known as ?

- (a) Pinna
- (b) Cochlea
- (c) Eardrum
- (d) Meatus

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