


<b>Name:</b>	
<b>Enrolment No:</b>	

**UPES**  
**End Semester Theory Examination, December 2023**

<b>Course: Human Anatomy and Physiology-I</b>	<b>Semester: I</b>
<b>Program: B. Pharm.</b>	<b>Time: 03 hrs.</b>
<b>Course Code: BP 101T</b>	<b>Max. Marks: 75</b>

**Instructions: Attempt all the questions**

**SECTION A**

S. No.	Multiple Choice Questions and one line answer type Questions (20X1=20)	Marks	CO
		<b>20</b>	
<b>Q 1.</b>	Which of the following is NOT an organ system in the human body? a) Respiratory system b) Endocrine system c) Digestive system d) Skeletal system	1	CO2
<b>Q 2.</b>	Which of the following is the largest organ in the human body? a) Liver b) Brain c) Skin d) Heart	1	CO1
<b>Q 3.</b>	The protective membranes that surround the brain and spinal cord are called the: a) Synapses b) Meninges c) Neurons d) Ganglia	1	CO3
<b>Q 4.</b>	Which of the following is NOT a sense organ? a) Eyes b) Nose c) Ears d) Esophagus	1	CO1
<b>Q 5.</b>	What is the function of the thalamus in the brain? a) Regulating body temperature b) Processing sensory information and relaying it to the cortex c) Controlling balance and coordination d) Regulating sleep-wake cycles	1	CO2
<b>Q 6.</b>	A bundle of axons in the peripheral nervous system is called a: a) Synapse b) Ganglion c) Nucleus d) Nerve	1	CO3

Q 7.	<p>Which division of the autonomic nervous system is responsible for "rest and digest" activities?</p> <ul style="list-style-type: none"> <li>a) Sympathetic</li> <li>b) Parasympathetic</li> <li>c) Somatic</li> <li>d) Enteric</li> </ul>	1	CO1
Q 8.	<p>Which type of muscle tissue is found in the walls of the stomach and blood vessels?</p> <ul style="list-style-type: none"> <li>a) Skeletal</li> <li>b) Cardiac</li> <li>c) Smooth</li> <li>d) Connective</li> </ul>	1	CO2
Q 9.	<p>Which cell organelle is involved in the synthesis of proteins?</p> <ul style="list-style-type: none"> <li>a) Mitochondria</li> <li>b) Golgi apparatus</li> <li>c) Ribosome</li> <li>d) Lysosome</li> </ul>	1	CO2
Q 10.	<p>Which of the following is NOT a stage of mitosis?</p> <ul style="list-style-type: none"> <li>a) Prophase</li> <li>b) Interphase</li> <li>c) Anaphase</li> <li>d) Telophase</li> </ul>	1	CO2
Q 11.	<p>The pigment responsible for giving color to the skin, hair, and eyes is called:</p> <ul style="list-style-type: none"> <li>a) Melatonin</li> <li>b) Melanin</li> <li>c) Collagen</li> <li>d) Keratin</li> </ul>	1	CO5
Q 12.	<p>Which chamber of the heart receives oxygenated blood from the lungs?</p> <ul style="list-style-type: none"> <li>a) Right atrium</li> <li>b) Right ventricle</li> <li>c) Left atrium</li> <li>d) Left ventricle</li> </ul>	1	CO3
Q 13.	<p>The "lub-dub" sounds of the heartbeat are associated with which events in the cardiac cycle?</p> <ul style="list-style-type: none"> <li>a) Atrial contraction and relaxation</li> <li>b) Ventricular contraction and relaxation</li> <li>c) Aortic valve opening and closing</li> <li>d) Pulmonary valve opening and closing</li> </ul>	1	CO5
Q 14.	<p>Which part of the eye is responsible for converting light into electrical signals that can be interpreted by the brain?</p> <ul style="list-style-type: none"> <li>a) Cornea</li> <li>b) Lens</li> <li>c) Retina</li> <li>d) Optic nerve</li> </ul>	1	CO1

<b>Q 15.</b>	Which of the following vessels carries oxygenated blood from the lungs to the heart? a) Pulmonary artery b) Pulmonary vein c) Aorta d) Superior vena cava	1	CO5
<b>Q 16.</b>	Which component of blood is responsible for clot formation? a) Platelets b) Red blood cells c) White blood cells d) Plasma	1	CO2
<b>Q 17.</b>	The term "cardiac output" refers to: a) The amount of blood pumped by each heartbeat b) The total volume of blood in the body c) The pressure of blood in the arteries d) The percentage of oxygen in the blood	1	CO4
<b>Q 18.</b>	Which vitamin is essential for the synthesis of clotting factors in the liver? a) Vitamin A b) Vitamin B12 c) Vitamin C d) Vitamin K	1	CO2
<b>Q 19.</b>	Which factor is known as the "Christmas factor" and is part of the intrinsic pathway? a) Factor VII b) Factor VIII c) Factor IX d) Factor X	1	CO3
<b>Q 20.</b>	What is anemia?	1	CO1
<b>SECTION B</b>			
<b>Long Answers (Answer two out of) 2X10</b>			
		<b>20</b>	
<b>Q 1.</b>	Discuss the structure and function of cranial and spinal nerves	5+5	CO1,
<b>Q 2.</b>	Explain the anatomy and functions of the cardiovascular system.	10	CO2
<b>Q 3.</b>	Write a detailed note on axial skeleton system.	10	CO1
<b>SECTION C</b>			
<b>Short Answers (Answer 7 out of 9) 7X5</b>			
		<b>35</b>	
<b>Q 1.</b>	Define homeostasis and explain positive and negative feedback mechanism.	1+4	CO2
<b>Q 2.</b>	Define and describe the components of the electrocardiogram (ECG) and its importance in assessing heart health.	5	CO5

<b>Q 3.</b>	Write a note on connective tissue.	5	CO1
<b>Q 4.</b>	Explain the steps involved in pathophysiology of bone healing.	5	CO5
<b>Q 5.</b>	Write a note on composition and functions of blood.	5	CO1
<b>Q 6.</b>	Differentiate between the structural and functional classifications of joints. Provide examples of each.	5	CO2
<b>Q 7.</b>	Discuss the structure and function of blood brain barrier.	5	CO4
<b>Q 8.</b>	Write a note on tissue involved in lymphatic system with their function.	5	CO2
<b>Q 9.</b>	Describe the structure and functions of the skin.	5	CO1