ALBERTA BIOLOGY 20 · UNIT 4 · 25 QUESTIONS

# Human Systems — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

**1** **Most of the chemical digestion and absorption of nutrients in the human digestive system occurs in the**

- A Stomach
- B Small intestine
- C Large intestine
- D Liver

Understand It with Pulse | Flag a mistake

2 **The enzyme in saliva that begins the chemical digestion of starch in the mouth is**

- A Pepsin
- B Lipase
- C Salivary amylase
- D Trypsin

Understand It with Pulse | Flag a mistake

3 **The graph shows lung volume during one breath at rest. The tidal volume, which is the difference between the largest and smallest lung volumes in the graph, in mL, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Which blood vessel carries oxygen-rich blood from the heart to the rest of the body?**

- A Pulmonary artery
- B Vena cava
- C Pulmonary vein
- D Aorta

Understand It with Pulse | Flag a mistake

5 **The number of chambers in the human heart is ____.**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **The function of the epiglottis during swallowing is to**

A Produce mucus that traps dust and bacteria

B Secrete enzymes into the small intestine

C Cover the opening of the trachea so food does not enter the airway

D Move food through the esophagus by peristalsis

Understand It with Pulse | Flag a mistake

7 **During inhalation, the diaphragm**

A Contracts, increasing the volume of the chest cavity

B Relaxes, decreasing the volume of the chest cavity

C Contracts, decreasing the volume of the chest cavity

D Relaxes, forcing air out of the lungs

Understand It with Pulse | Flag a mistake

8 **A drop of blood returning from the body passes through the following structures of the heart. 1 Aorta 2 Right atrium 3 Left ventricle 4 Right ventricle The order in which the blood passes through these structures, from first to last, is ____. Record your answer as a four-digit number.**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **Bile, which helps in the digestion of fats, is stored in the**

A Liver

B Gallbladder

C Pancreas

D Small intestine

Understand It with Pulse | Flag a mistake

**10** **In a nephron, the filtration of blood under pressure occurs in the**

- A Proximal tubule
- B Loop of Henle
- C Collecting duct
- D Glomerulus

Understand It with Pulse | Flag a mistake

**11** **Some structures of the digestive system are listed below. 1 Large intestine 2 Mouth 3 Stomach 4 Small intestine 5 Esophagus The order in which food passes through these structures, from first to last, is ____. Record your answer as a five-digit number.**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **Deoxygenated blood is pumped from the right ventricle to the lungs through the**

A Pulmonary artery

B Pulmonary vein

C Aorta

D Vena cava

Understand It with Pulse | Flag a mistake

13 **The component of blood that transports oxygen is the**

A Plasma

B White blood cells

C Red blood cells

D Platelets

Understand It with Pulse | Flag a mistake

14 **The graph shows pepsin activity at different pH values. The pH at which pepsin activity is highest is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **Some structures involved in urine formation and excretion are listed below. 1 Urethra 2 Ureter 3 Bowman's capsule 4 Urinary bladder The order in which filtrate and urine pass through these structures, from first to last, is ____. Record your answer as a four-digit number.**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **The villi that line the small intestine function to**

A Produce digestive enzymes

B Secrete insulin into the blood

C Move food by peristalsis

D Increase the surface area for absorption

Understand It with Pulse | Flag a mistake

17 **The graph shows breathing rate at different carbon dioxide concentrations in the blood. The breathing rate, in breaths per minute, when the carbon dioxide concentration is 50 arbitrary units is _____**

ANSWER

Understand It with Pulse | Flag a mistake

18 **The valves inside the heart and veins function to**

A Produce the heartbeat

B Prevent the backflow of blood

C Filter wastes from the blood

D Exchange gases with the tissues

Understand It with Pulse | Flag a mistake

19 **The graph shows a student's heart rate during exercise. The student's stroke volume is 70 mL per beat. The cardiac output at 6 minutes, in mL per minute, is ____**

ANSWER

Understand It with Pulse | Flag a mistake

**20** **Which statement about the pancreas is incorrect?**

- **A** It secretes amylase, which digests starch
- **B** It secretes trypsin, which digests protein
- **C** It secretes lipase, which digests fat
- **D** It secretes insulin into the small intestine to digest glucose

Understand It with Pulse | Flag a mistake

**21** **At the alveoli, oxygen passes from the air into the blood mainly because**

- **A** The blood has a higher oxygen concentration than the air in the alveoli
- **B** Oxygen is actively pumped across the alveolar membrane
- **C** The air in the alveoli has a higher oxygen concentration than the blood
- **D** The diaphragm forces oxygen into the capillaries

Understand It with Pulse | Flag a mistake

22 **Some structures of the respiratory system are listed below. 1 Trachea 2 Alveoli 3 Nasal cavity 4 Bronchus The order in which inhaled air passes through these structures, from first to last, is ____. Record your answer as a four-digit number.**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **The graph shows the glucose remaining in the filtrate at each stage of urine formation, in order: stage 1 is the glomerulus, stage 2 is the proximal tubule, stage 3 is the loop of Henle, and stage 4 is the collecting duct. The glucose reabsorbed by stage 4, as a percent of the filtered amount, is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

**24** **Which statement correctly describes an interaction between two body systems?**

- **A** The digestive system supplies oxygen to the blood for the respiratory system
- **B** The excretory system pumps blood through the heart and lungs
- **C** The respiratory system absorbs nutrients from digested food
- **D** In the lungs, oxygen from the respiratory system passes into the blood of the circulatory system

Understand It with Pulse | Flag a mistake

**25** **The natural pacemaker of the heart, which initiates each heartbeat, is the**

- **A** Atrioventricular node
- **B** Sinoatrial node
- **C** Medulla oblongata
- **D** Vagus nerve

Understand It with Pulse | Flag a mistake

# ANSWER KEY

1. B
2. C
3. 500
4. D
5. 4
6. C
7. A
8. 2431
9. B
10. D
11. 25341
12. A
13. C
14. 2
15. 3241
16. D
17. 24
18. B
19. 8400
20. D
21. C
22. 3142
23. 100
24. D
25. B

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