

PHS 7.1 – BASIC STRUCTURE OF THE HUMAN BODY PRACTICE TEST (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://phs71basicstructurehumanbody.examzify.com>



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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. What does the term 'homeostasis' signify in human biology?**
 - A. A disease caused by prescribed treatment
 - B. Constant state of natural balance within the body
 - C. Identification of unknown diseases
 - D. Process of creating energy in cells
- 2. Cartilage is found in which of the following locations?**
 - A. Knees and lungs
 - B. Spine and ears
 - C. Heart and veins
 - D. Brain and kidneys
- 3. What is the primary function of the muscular system?**
 - A. Produces movement
 - B. Creates frameworks for the body
 - C. Produces vitamin D
 - D. Controls body activities
- 4. Which organ is part of both the digestive system and the endocrine system?**
 - A. Stomach
 - B. Liver
 - C. Pancreas
 - D. Kidney
- 5. What type of disease is commonly caused by lifestyle choices such as diet and exercise?**
 - A. Infectious disease
 - B. Degenerative disease
 - C. Congenital disease
 - D. Inherited disease

- 6. Which component of the cell acts as its outer protective covering?**
- A. Centrosome
 - B. Cytoplasm
 - C. Cell membrane
 - D. Chromatin
- 7. What organ is mainly responsible for coordinating movement?**
- A. Lungs
 - B. Heart
 - C. Brain
 - D. Liver
- 8. What type of tissue allows for communication between different parts of the body?**
- A. Connective tissue
 - B. Nervous tissue
 - C. Epithelial tissue
 - D. Muscle tissue
- 9. What are mitochondria known as in the cell?**
- A. Digestive organs
 - B. Powerhouses
 - C. Control centers
 - D. Storage units
- 10. What do lysosomes contain?**
- A. Proteins for energy
 - B. Digestive enzymes
 - C. Red blood cells
 - D. Genetic material

Answers

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1. B
2. B
3. A
4. C
5. B
6. C
7. C
8. B
9. B
10. B

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Explanations

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1. What does the term 'homeostasis' signify in human biology?

- A. A disease caused by prescribed treatment
- B. Constant state of natural balance within the body**
- C. Identification of unknown diseases
- D. Process of creating energy in cells

The term 'homeostasis' signifies a constant state of natural balance within the body, which refers to the processes that organisms use to maintain a stable internal environment despite external changes. This concept is vital in human biology as it encompasses various physiological mechanisms that regulate body temperature, pH levels, hydration, and the concentrations of essential ions and nutrients. For instance, when the body's temperature rises due to external heat or physical activity, mechanisms such as sweating and increased blood flow to the skin help dissipate heat. Similarly, when there is a drop in blood glucose levels, the body responds by releasing hormones such as glucagon, which stimulates glucose release from stores, thereby restoring balance. Homeostasis is crucial for the health and function of cells and systems within the body, ensuring that all biochemical processes can occur efficiently. Understanding homeostasis is fundamental in recognizing how the body adapts to changes and how it can sometimes fail to maintain this balance, leading to various health issues. The other choices do not accurately capture this core concept of physiological balance and regulation.

2. Cartilage is found in which of the following locations?

- A. Knees and lungs
- B. Spine and ears**
- C. Heart and veins
- D. Brain and kidneys

Cartilage is a flexible connective tissue that plays various critical roles in the human body. It serves as a cushion between bones in joints, provides support in structures such as the ears, and forms part of the respiratory system. In the given context, the spine and ears are notable locations where cartilage is found. In the spine, cartilage is specifically present in intervertebral discs, which act as shock absorbers between vertebrae and allow for flexibility and movement. In the ears, cartilage helps maintain shape and support, ensuring that the ear maintains its structure. Other locations listed, such as knees and lungs, may contain cartilage but are not the primary examples connected with its characteristic functions. The heart and veins do not contain cartilage, as these structures are comprised predominantly of muscle and connective tissues. Similarly, while the brain and kidneys are essential organs, they do not contain cartilage, which primarily serves a supportive or cushioning function in specific areas of the body. Thus, the choice of the spine and ears effectively highlights the key roles of cartilage in maintaining the body's structure and function.

3. What is the primary function of the muscular system?

- A. Produces movement**
- B. Creates frameworks for the body
- C. Produces vitamin D
- D. Controls body activities

The primary function of the muscular system is to produce movement. Muscles contract and relax, which allows for the movement of various parts of the body, including limbs and organs. This movement is essential for many bodily functions, such as walking, running, and even movements related to digestion and circulation. The muscular system works in conjunction with the skeletal system, where muscles are attached to bones, resulting in coordinated movements. In contrast, the roles of creating frameworks for the body, producing vitamin D, and controlling body activities are functions associated with other systems, such as the skeletal system, integumentary system, and nervous system, respectively. Therefore, the primary role of the muscular system focuses specifically on the generation of movement.

4. Which organ is part of both the digestive system and the endocrine system?

- A. Stomach
- B. Liver
- C. Pancreas**
- D. Kidney

The pancreas is unique because it serves as both an essential organ of the digestive system and plays a critical role in the endocrine system. In the digestive system, the pancreas produces digestive enzymes that are released into the small intestine to help break down food. This enzymatic function is crucial for the proper digestion of carbohydrates, proteins, and fats. Simultaneously, the pancreas also has endocrine functions. It contains clusters of cells known as the islets of Langerhans, which produce hormones such as insulin and glucagon. These hormones are vital for regulating blood sugar levels, making the pancreas integral to glucose metabolism. This dual functionality is what makes the pancreas a unique organ straddling both systems. The other organs listed do not fulfill this dual role; they either serve one system or the other, making the pancreas the correct answer.

5. What type of disease is commonly caused by lifestyle choices such as diet and exercise?

- A. Infectious disease
- B. Degenerative disease**
- C. Congenital disease
- D. Inherited disease

The correct answer is degenerative disease because these conditions are often influenced by lifestyle choices, including diet and physical activity. Degenerative diseases, such as heart disease, type 2 diabetes, and certain types of cancer, are primarily characterized by the progressive deterioration of bodily functions and structures. Risk factors associated with these diseases often stem from unhealthy lifestyles, such as poor dietary habits and lack of exercise, which can lead to obesity, high cholesterol, and other health problems. In contrast, infectious diseases are caused by pathogens like bacteria or viruses and are not directly related to an individual's lifestyle. Congenital diseases are those present at birth and are typically caused by genetic abnormalities or environmental factors affecting the fetus during development. Inherited diseases are genetic disorders passed from parents to offspring, rooted in the individual's genetic makeup, rather than choices made after birth. Therefore, degenerative diseases stand out in the context of lifestyle influences, making this the most appropriate choice.

6. Which component of the cell acts as its outer protective covering?

- A. Centrosome
- B. Cytoplasm
- C. Cell membrane**
- D. Chromatin

The cell membrane serves as the outer protective covering of the cell. It is a vital structure that separates the interior of the cell from the external environment while providing a barrier that regulates the passage of substances in and out of the cell. Composed primarily of a phospholipid bilayer with embedded proteins, the cell membrane is selectively permeable, allowing certain materials to enter or exit while keeping others contained. This function is essential for maintaining homeostasis within the cell and facilitating communication with other cells. In contrast, the centrosome plays a role in organizing microtubules and is crucial for cell division. Cytoplasm refers to the gel-like substance inside the cell where various organelles are located, but it does not serve as a protective barrier. Chromatin consists of DNA and proteins and is found in the nucleus of the cell, functioning primarily in the storage and expression of genetic information.

7. What organ is mainly responsible for coordinating movement?

- A. Lungs
- B. Heart
- C. Brain**
- D. Liver

The brain is primarily responsible for coordinating movement because it integrates sensory information and sends signals to various muscles throughout the body to produce coordinated actions. It processes input from the environment, such as visual and auditory cues, and makes decisions on how to respond through movement. The motor cortex, located in the brain, is specifically involved in planning and executing voluntary movements. Additionally, the cerebellum plays a crucial role in maintaining balance and fine-tuning movements, ensuring they are smooth and accurate. The other organs, while essential for overall health and body functioning, have different primary responsibilities. The lungs are primarily involved in gas exchange, the heart is responsible for pumping blood throughout the body to supply oxygen and nutrients, and the liver plays a critical role in metabolism and detoxification. Thus, the brain's unique function in movement coordination makes it the correct choice.

8. What type of tissue allows for communication between different parts of the body?

- A. Connective tissue
- B. Nervous tissue**
- C. Epithelial tissue
- D. Muscle tissue

Nervous tissue is responsible for allowing communication between different parts of the body. This type of tissue is composed of neurons, which are specialized cells that transmit electrical signals, as well as supporting cells known as glial cells. The primary function of nervous tissue is to quickly send and receive messages throughout the body, coordinating actions and responses to stimuli. This communication enables complex processes such as reflexes, sensory perception, and high-level functions like thought and memory, making it essential for maintaining homeostasis and responding to the environment. Other tissue types have different primary functions: connective tissue supports and binds other tissues, epithelial tissue covers surfaces and forms protective barriers, and muscle tissue is responsible for movement. None of these tissue types facilitate communication in the same way that nervous tissue does.

9. What are mitochondria known as in the cell?

- A. Digestive organs
- B. Powerhouses**
- C. Control centers
- D. Storage units

Mitochondria are often referred to as the "powerhouses" of the cell because they play a crucial role in generating adenosine triphosphate (ATP), which is the primary energy currency in cellular processes. Through the process of cellular respiration, mitochondria convert biochemical energy from nutrients into ATP, enabling cells to perform various functions that require energy. This ability to produce ATP effectively positions mitochondria as vital components for energy metabolism within the cell. While other cellular structures have distinct functions—such as lysosomes involved in digestion, the nucleus acting as a control center for genetic information, or vacuoles serving as storage for substances—the unique energy-producing capability of mitochondria is why they hold the title of powerhouses. This fundamental role in energy production is critical for the survival and proper functioning of all eukaryotic cells.

10. What do lysosomes contain?

- A. Proteins for energy
- B. Digestive enzymes**
- C. Red blood cells
- D. Genetic material

Lysosomes are specialized organelles within cells that play a critical role in the digestion and recycling of cellular waste. They contain digestive enzymes that are capable of breaking down various biomolecules, such as proteins, lipids, carbohydrates, and nucleic acids. This enzymatic activity is essential for maintaining cellular health, as it helps to remove damaged organelles, pathogens, and other debris. The enzymes within lysosomes function optimally in the acidic environment maintained inside these organelles, which allows the breakdown of complex substances into simpler components that can be reused or expelled from the cell. The presence of these digestive enzymes distinguishes lysosomes from other cellular components, making them vital for processes such as autophagy (the self-degradation of damaged cell parts) and the immune response. Their function is crucial in ensuring that the cell operates efficiently and can adapt to changes or damage.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://phs71basicstructurehumanbody.examzify.com>

We wish you the very best on your exam journey. You've got this!

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