Pivot Point The Building Blocks of the Human Body 105E.01 Practice Test (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

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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

1. Which organ filters old blood through the lymphatic system?

A. Spleen

B. Liver

C. Kidney

D. Pancreas

2. Which system releases hormones that regulate metabolism and energy levels?

A. Endocrine System

B. Nervous System

C. Immune System

D. Respiratory System

3. What does ATP stand for?

A. Adenosine monophosphate

B. Adenosine triphosphate

C. Adenosine diphosphate

D. Adenosine tetraphosphate

4. Which system coordinates long-term processes through hormones rather than nerve impulses?

A. Endocrine System

B. Nervous System

C. Digestive System

D. Muscular System

5. Which system allows for voluntary and involuntary movement of the body?

A. Digestive System

B. Muscular System

C. Lymphatic System

D. Nervous System

6. Ribosomes are described as what?

A. Energy producers

B. Protein builders made up of RNA

C. Membrane-bound sacs

D. Genetic material

7. Catabolism is the process of breaking down complex materials to form simpler substances and release energy.

A. Anabolism

B. Catabolism

C. Homeostasis

D. Digestion

8. Which vessels carry blood through the body?

A. Veins and arteries

B. Lymph nodes

C. Capillaries

D. Nerves

9. Which system sends and receives messages?

A. Nervous System

B. Integumentary System

C. Skeletal System

D. Circulatory System

10. An organ is defined as separate body structures composed of multiple tissues that each perform specific functions.

A. A single tissue

B. Multiple tissues performing specific functions

C. A cell

D. A type of system

Answers

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

Explanations

1. Which organ filters old blood through the lymphatic system?

A. Spleen

B. Liver

C. Kidney

D. Pancreas

The spleen is a lymphoid organ that filters blood rather than urine. In the spleen, old or damaged red blood cells are removed by macrophages in the red pulp, while the white pulp contains lymphocytes that help with immune defense. This combination makes the spleen the organ that handles cleanup of aged blood cells and contributes to immune surveillance, which is why it's the correct choice. The liver mainly processes and detoxifies substances, the kidneys filter blood to produce urine, and the pancreas has digestive and hormonal roles, not filtering old blood.

2. Which system releases hormones that regulate metabolism and energy levels?

A. Endocrine System

B. Nervous System

C. Immune System

D. Respiratory System

Hormones are chemical messengers released into the bloodstream to control how the body uses energy. The endocrine system hosts glands that secrete these hormones, and they regulate metabolic rate, glucose use, and energy mobilization. For example, thyroid hormones set the pace of metabolism, while insulin and glucagon manage blood glucose, and adrenal hormones adjust energy availability during stress. Because these signals travel through the blood to distant targets, the endocrine system is the main regulator of metabolism and energy levels. The nervous system uses fast-acting electrical signals and neurotransmitters for quick control, not long-distance hormonal signaling, and the immune and respiratory systems aren't the primary sources of hormones that govern metabolism.

3. What does ATP stand for?

A. Adenosine monophosphate

B. Adenosine triphosphate

C. Adenosine diphosphate

D. Adenosine tetraphosphate

ATP stands for adenosine triphosphate. The "adenosine" part names the base, and "triphosphate" shows there are three phosphate groups attached. This three-phosphate structure is what lets ATP store and release energy for cellular work. The other options describe related molecules with different numbers of phosphates: one phosphate is adenosine monophosphate, two are adenosine diphosphate, and tetraphosphate isn't the standard name for ATP. So the correct form—adenosine triphosphate—accurately reflects both the adenosine unit and the three phosphate groups.

4. Which system coordinates long-term processes through hormones rather than nerve impulses?

A. Endocrine System

B. Nervous System

C. Digestive System

D. Muscular System

Chemicals called hormones coordinate long-term processes by traveling through the bloodstream to distant targets. The endocrine system, made up of glands like the pituitary, thyroid, and adrenal, releases these hormones to regulate growth, metabolism, reproduction, and stress responses over extended periods. Since hormonal signals act more slowly than nerve impulses, their effects tend to develop gradually and last longer, providing sustained control across the body. In contrast, the nervous system uses nerve impulses for rapid, precise communication, producing quick responses to stimuli. The digestive and muscular systems play key roles in processing nutrients and enabling movement, but they're not the primary pathways for coordinating long-term hormonal signaling.

5. Which system allows for voluntary and involuntary movement of the body?

A. Digestive System

B. Muscular System

C. Lymphatic System

D. Nervous System

Movement is produced by muscles, and this system handles both deliberate and automatic actions. Skeletal muscles let you move parts of your body on command (voluntary movement), while smooth muscles in organs and blood vessels and cardiac muscle in the heart execute automatic, involuntary contractions. The nervous system signals muscles to contract, but the actual act of moving comes from the muscular system itself. The digestive, lymphatic, and nervous systems play supporting roles—digestive moves contents through tubes, the lymphatic system transports lymph, and the nervous system coordinates actions—yet they don't directly generate movement in the way muscles do.

6. Ribosomes are described as what?

A. Energy producers

B. Protein builders made up of RNA

C. Membrane-bound sacs

D. Genetic material

Ribosomes are protein-synthesis machines made mostly of RNA and protein. They translate messenger RNA into a polypeptide chain, with the RNA component (rRNA) playing a central catalytic role in forming peptide bonds. They are not energy producers—the job of generating energy lies with mitochondria (and chloroplasts in plants). They aren't membrane-bound sacs, though some ribosomes attach to the rough endoplasmic reticulum; the ribosome itself is a small particle, not a membrane-bound compartment. They aren't genetic material—the cell's genetic material is DNA (and, in some contexts, RNA as a messenger), but ribosomes don't carry the genome.

7. Catabolism is the process of breaking down complex materials to form simpler substances and release energy.

A. Anabolism

B. Catabolism

C. Homeostasis

D. Digestion

The concept being tested is how catabolic processes break down complex molecules into simpler ones and release energy. Catabolism involves degrading large molecules—like carbohydrates, proteins, and fats—into smaller units, with energy released in the form of ATP to power cellular activities. This is the opposite of anabolism, which builds larger molecules and consumes energy. Homeostasis is about maintaining stable internal conditions, not the breakdown of materials, and digestion is a specific digestive system process that is a type of catabolic activity but is narrower than the overall concept of catabolism. So, the term that matches the description is catabolism.

8. Which vessels carry blood through the body?

A. Veins and arteries

B. Lymph nodes

C. Capillaries

D. Nerves

Blood is moved through the body by a network of vessels, with the main transport highways being arteries and veins. Arteries carry blood away from the heart to tissues, while veins return it back toward the heart. Capillaries are the tiny connecting vessels between arteries and veins where gas and nutrient exchange occurs; they're indeed blood vessels, but they mainly serve exchange and bridging between the larger vessels. Lymph nodes are part of the lymphatic system, not blood vessels, and nerves do not carry blood.

9. Which system sends and receives messages?

A. Nervous System

B. Integumentary System

C. Skeletal System

D. Circulatory System

Messages in the body are carried by the nervous system, which is the body's main communication network. It sends and receives rapid signals through neurons, using electrical impulses and neurotransmitters at synapses to pass information to the brain, muscles, and glands. This system integrates sensory input, processes it, and triggers appropriate actions quickly, like pulling a hand back from a hot surface or adjusting balance. The other systems don't serve this centralized signaling role: the integumentary system mainly protects the body and houses some skin sensations, the skeletal system provides structure and support, and the circulatory system transports blood, nutrients, and even hormones but does not constitute the rapid messaging network by itself.

10. An organ is defined as separate body structures composed of multiple tissues that each perform specific functions.

A. A single tissue

B. Multiple tissues performing specific functions

C. A cell

D. A type of system

Organ structure is formed by multiple tissues working together to perform a specific function. Each tissue type—epithelial, connective, muscle, and nervous—provides a distinct part of the organ's role, and their coordinated activity lets the organ carry out its task. For example, the heart uses muscle tissue to pump, connective tissue for support, and nervous tissue to regulate rhythm. A single tissue by itself isn't an organ, a cell is far too small to be an organ, and a system is a group of organs working together. So an organ is defined as separate body structures composed of multiple tissues that each perform specific functions.

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://pivotpoint105e01.examzify.com

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