Health Science I – Anatomy, Physiology, and Medical Conditions Practice Test (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

Table of Contents

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. What are body cells that react to a particular hormone called?

A. Endocrine glands

B. Hormone receptors

C. Target organ cells

D. Steroid cells

2. Which autoimmune disorder causes fluctuating weakness and has no cure?

A. Multiple sclerosis

B. Myasthenia gravis

C. Lupus

D. Rheumatoid arthritis

3. Which viral illness is characterized by fatigue and enlarged lymph nodes?

A. Influenza

B. Dengue

C. Cytomegalovirus

D. Mononucleosis

4. Color vision is mediated by which photoreceptors in the retina?

A. Cones

B. Rods

C. Bipolar cells

D. Ganglion cells

5. Which term describes the outer layer of a serous membrane lining a body cavity?

A. Parietal

B. Visceral

C. Mucosa

D. Serosa

6. What type of fracture does a child have if there is an incomplete separation of the bone?

A. Greenstick

B. Comminuted

C. Spiral

D. Transverse

7. Which term describes a skin cancer most likely to have irregular borders and multiple colors?

A. Melanoma

B. Basal cell carcinoma

C. Seborrheic keratosis

D. Verruca

8. What skin disorder can be prevented by not sharing towels?

A. Acne

B. Eczema

C. Psoriasis

D. Ringworm

9. What condition does a child have if treated with a clotting factor for a nosebleed?

A. Von Willebrand disease

B. Anemia

C. Hemophilia

D. Leukemia

10. What part of the eye is described as the window through which light enters?

A. Retina

B. Lens

C. Cornea

D. Iris

Answers

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

Explanations

1. What are body cells that react to a particular hormone called?

A. Endocrine glands

B. Hormone receptors

C. Target organ cells

D. Steroid cells

Cells that respond to a hormone are called target cells. These cells have specific receptors for that hormone, so when the hormone binds, it triggers a signaling cascade that alters the cell's activity, gene expression, or metabolism. Hormones travel through the bloodstream and only affect tissues whose cells carry the appropriate receptor, making those cells the targets of the hormone's action. The term target organ cells captures this idea, since it's the cells in the organs that respond to the hormone. Endocrine glands are about hormone production, not the reacting cells. Hormone receptors are the binding proteins on cells, but the question points to the cells themselves, which are defined by having those receptors. Steroid cells isn't a standard way to label the responding cells.

2. Which autoimmune disorder causes fluctuating weakness and has no cure?

A. Multiple sclerosis

B. Myasthenia gravis

C. Lupus

D. Rheumatoid arthritis

Fluctuating, fatigable weakness is most characteristic of myasthenia gravis, an autoimmune attack on the neuromuscular junction. In this condition, antibodies target the postsynaptic acetylcholine receptors (or related proteins), so each use of a muscle is less able to generate a strong contraction. The result is weakness that worsens with activity and improves with rest, a hallmark pattern that helps distinguish it from other autoimmune diseases. There is no cure, but symptoms can be managed with treatments that improve neuromuscular transmission and suppress the immune response, such as acetylcholinesterase inhibitors, immunosuppressants, plasmapheresis or IVIG, and thymectomy in some cases. Other autoimmune diseases may involve weakness or systemic symptoms, but they don't characteristically produce the same fatigable, activity-related weakness pattern seen in myasthenia gravis.

3. Which viral illness is characterized by fatigue and enlarged lymph nodes?

A. Influenza

B. Dengue

C. Cytomegalovirus

D. Mononucleosis

Fatigue with enlarged lymph nodes is a classic sign of infectious mononucleosis caused by Epstein-Barr virus. This illness often starts with notable fatigue and fever, followed by sore throat and tender lymphadenopathy, especially in the neck. The swollen nodes come from immune activation in lymphoid tissues as the body tackles EBV. Some patients may have mild liver involvement and, importantly, the spleen can enlarge, so activities that risk abdominal impact are avoided until cleared. Diagnosis is supported by a heterophile antibody test (Monospot) and EBV-specific serology if needed. While other viruses can cause fatigue, influenza typically presents with abrupt fever and respiratory symptoms; dengue features high fever with severe systemic symptoms and rash; cytomegalovirus can mimic mono but the combination of fatigue with prominent lymph node enlargement is most characteristic of infectious mononucleosis.

4. Color vision is mediated by which photoreceptors in the retina?

A. Cones

B. Rods

C. Bipolar cells

D. Ganglion cells

Color vision comes from cone photoreceptors in the retina. Cones express three different visual pigments that are sensitive to different parts of the light spectrum—short, medium, and long wavelengths—which the brain combines to perceive a range of colors. They function best in bright light and are densely packed in the fovea, giving high resolution color detail. Rods, by contrast, are highly sensitive and handle vision in dim light but provide mostly black-and-white information. Bipolar and ganglion cells are neurons that pass signals from photoreceptors toward the brain; they're part of the processing pathway, not the color-detecting cells themselves. So color vision is mediated by cones.

5. Which term describes the outer layer of a serous membrane lining a body cavity?

A. Parietal

B. Visceral

C. Mucosa

D. Serosa

Parietal describes the outer lining of a serous membrane that lines the walls of a body cavity. A serous membrane has two layers: the parietal layer attaches to the cavity wall, and the visceral layer covers the organ inside the cavity. The space between them contains serous fluid to reduce friction as organs move. The term serosa refers to the membrane itself as a whole, not specifically the outer lining, and mucosa describes membranes that line passages open to the outside, not closed body cavities.

6. What type of fracture does a child have if there is an incomplete separation of the bone?

A. Greenstick

B. Comminuted

C. Spiral

D. Transverse

In children, bones are more flexible, so a bending force can cause the bone to buckle on one side while not fully breaking on the other. This incomplete separation where the cortex on the bending (tension) side cracks but remains partly intact is called a greenstick fracture. The term describes a half-break rather than a full fracture through the bone. This differs from a comminuted fracture, which involves multiple bone fragments; a spiral fracture, caused by twisting, typically shows a helical fracture line and is usually a complete break; and a transverse fracture, which is a clean break straight across the bone, also a complete fracture.

7. Which term describes a skin cancer most likely to have irregular borders and multiple colors?

A. Melanoma

B. Basal cell carcinoma

C. Seborrheic keratosis

D. Verruca

Irregular borders with multiple colors are hallmark features of melanoma, a malignant tumor arising from pigment-producing melanocytes. The variation in color (shades of brown to black, and sometimes red, tan, or blue) reflects heterogeneity in the tumor and changing pigment production as it grows, while irregular, notched edges indicate invasion into surrounding skin rather than a uniform, benign growth. This pattern helps distinguish melanoma from other skin conditions. Basal cell carcinoma often looks pearly or translucent with a rolled or raised border and less color variation. Seborrheic keratosis has a waxy, "stuck-on" appearance with uniform color. Verruca (wart) tends to be rough and hyperkeratotic, usually not multi-colored or irregular in border in the same way melanoma is. Recognizing color variation plus border irregularity should raise concern for melanoma and lead to prompt evaluation and biopsy if indicated.

8. What skin disorder can be prevented by not sharing towels?

A. Acne

B. Eczema

C. Psoriasis

D. Ringworm

Sharing towels can transfer fungal spores that cause ringworm from one person to another. Ringworm is spread by contact with contaminated towels, linens, or personal items, so using your own towel helps block that transmission route and reduces the chance of infection. Acne, eczema, and psoriasis are not contagious through towels—acne stems from clogged pores and bacteria on the skin, eczema is an inflammatory or allergic condition, and psoriasis is autoimmune. Keeping personal towels separates you from the fungus and specifically targets the way ringworm is transmitted.

9. What condition does a child have if treated with a clotting factor for a nosebleed?

A. Von Willebrand disease

B. Anemia

C. Hemophilia

D. Leukemia

A nosebleed treated with a clotting factor points to a deficiency in the blood's clotting system. Hemophilia is a genetic disorder where the body lacks one of the clotting factors, most commonly factor VIII or factor IX. When the missing factor is replaced, the coagulation cascade can proceed to form a proper clot and stop the bleeding. This direct factor replacement is a hallmark approach for hemophilia during bleeds. Others like von Willebrand disease involve issues with von Willebrand factor and can also require specialized treatments (such as vWF-containing products or desmopressin in some cases), but the classic scenario of needing a specific clotting factor to halt a bleed is most characteristic of hemophilia. Conditions like anemia or leukemia affect blood cells rather than a single coagulation factor, so they aren't treated with a clotting factor infusion to stop a nosebleed.

10. What part of the eye is described as the window through which light enters?

A. Retina

B. Lens

C. Cornea

D. Iris

Light entering the eye is first passed through the cornea, the clear, curved front surface. Its transparency and shape make it the eye's initial window, bending most of the light that will be focused onto the retina. In fact, the cornea provides the majority of the eye's refractive power, beginning the focusing process as soon as light hits the eye. The lens then fine-tunes the focus, while the iris regulates how much light can enter. If the cornea becomes cloudy or scarred, vision is blocked or blurred because light can't pass through properly. The retina sits at the back of the eye and detects the light to create vision, but it is the cornea that marks the entry point and primes the optical image.

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://healthscience1anatomyphysio.examzify.com

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