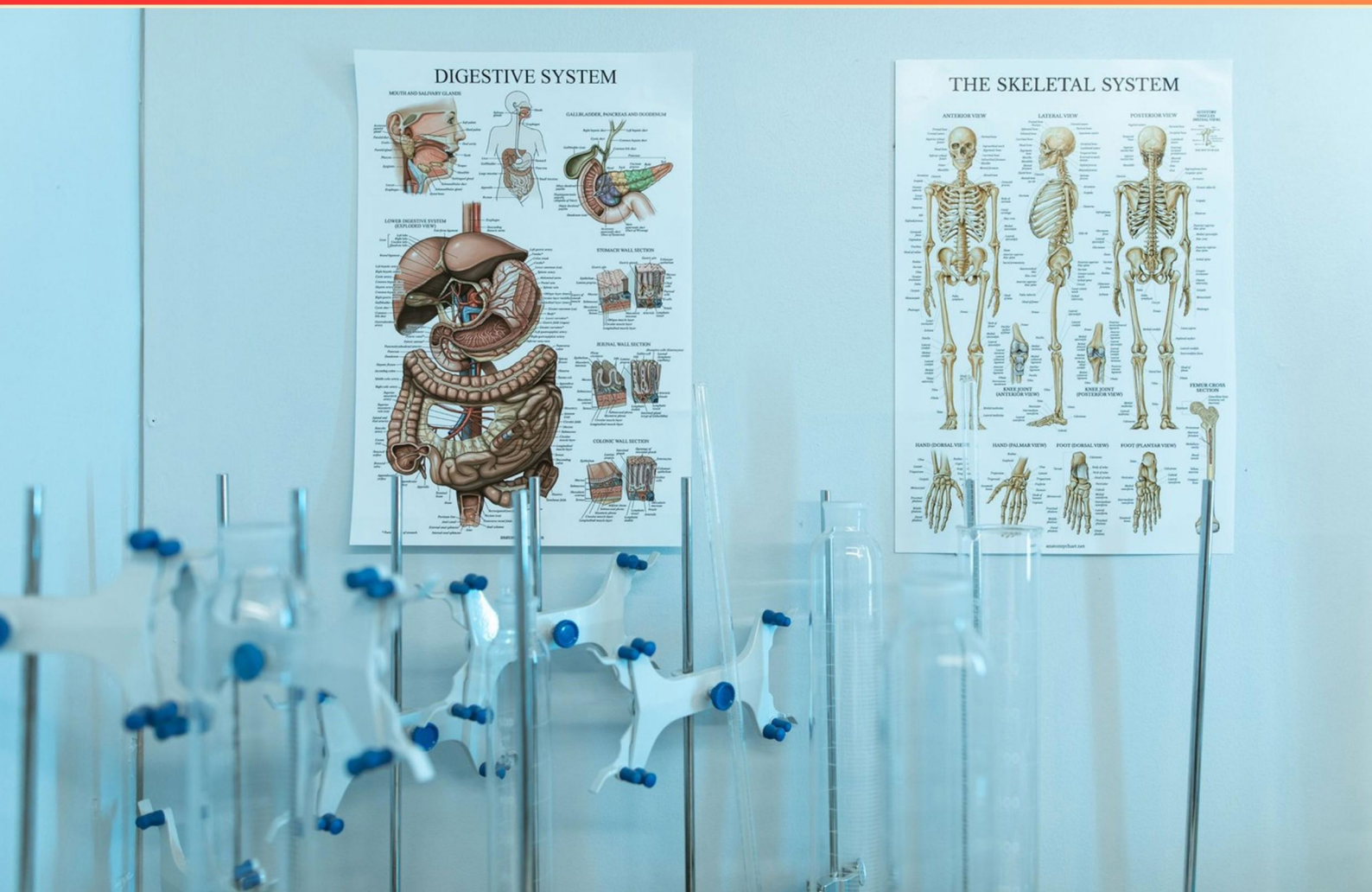


ANATOMY AND PHYSIOLOGY II (APII) EXAM 3 PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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 is the disadvantage of the right bronchus being larger in diameter and positioned at a steeper angle than the left bronchus?**
 - A. It causes more airflow to the right lung
 - B. It is less elastic
 - C. It prevents secretions from migrating
 - D. Most foreign objects that enter the trachea find their way into the right bronchus

- 2. Memory T cells are best described as?**
 - A. Respond to previously encountered antigen
 - B. Produce antibodies during primary response
 - C. Present antigen to B cells
 - D. Secrete histamine

- 3. Which of the following is NOT a segment of the colon?**
 - A. Ascending
 - B. Transverse
 - C. Cecum
 - D. Sigmoid

- 4. Oxygen-rich blood from the lungs enters the heart via which vessels?**
 - A. Aorta
 - B. Pulmonary veins
 - C. Superior vena cava
 - D. Pulmonary arteries

- 5. What is the structure and function of the mesenteries?**
 - A. Double sheets of peritoneal membrane that stabilize the positions of attached organs
 - B. A single layer of tissue that lines the abdominal cavity
 - C. A network of nerves supplying the gut
 - D. A muscular sling supporting the intestines

- 6. Stellate phagocytic liver cells are called what?**
- A. Kupffer cells
 - B. Hepatocytes
 - C. Stellate cells
 - D. Endothelial cells
- 7. Which region is located between the hyoid bone and the entrance to the larynx?**
- A. Nasopharynx
 - B. Laryngopharynx
 - C. Oropharynx
 - D. Esophagus
- 8. Antibodies transferred across the placenta to protect the fetus illustrate which type of adaptive immunity?**
- A. Artificially acquired active immunity
 - B. Naturally acquired active immunity
 - C. Artificially acquired passive immunity
 - D. Naturally acquired passive immunity
- 9. Which set lists all three major lymphocyte classes that circulate in blood?**
- A. T cells and B cells
 - B. T cells, B cells, NK cells
 - C. NK cells
 - D. B cells and NK cells
- 10. What is the primary function of antigen-presenting cells (APCs) in the immune response?**
- A. Produce antibodies
 - B. Present antigens to T cells
 - C. Phagocytose bacteria
 - D. Secrete histamine

Answers

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

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Explanations

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1. What is the disadvantage of the right bronchus being larger in diameter and positioned at a steeper angle than the left bronchus?

- A. It causes more airflow to the right lung
- B. It is less elastic
- C. It prevents secretions from migrating
- D. Most foreign objects that enter the trachea find their way into the right bronchus**

The key idea is that airway anatomy directs where aspirated material tends to go. The right main bronchus is wider and more vertical (it travels from the trachea at a steeper angle) than the left. Because of this alignment and size, objects entering the trachea are more likely to slip into the right bronchus and lodge there. That predisposition—foreign bodies or secretions entering and getting stuck in the right side—is the disadvantage described. The left bronchus, being narrower and more horizontal, is less likely to receive aspirated material, so the issue described doesn't apply there. Other statements don't reflect this anatomical tendency toward the right side.

2. Memory T cells are best described as?

- A. Respond to previously encountered antigen**
- B. Produce antibodies during primary response
- C. Present antigen to B cells
- D. Secrete histamine

Memory T cells are long-lived T lymphocytes that persist after an initial encounter and are primed to respond quickly if the same antigen is encountered again. They come from activated naive T cells and, upon re-exposure, require less stimulation to expand and to produce effector functions, leading to a faster, stronger response than during the first exposure. This is why they're best described as responding to a previously encountered antigen. They don't make antibodies (that's the role of B cells/plasma cells), they don't primarily present antigen to B cells (presentation is done by antigen-presenting cells like dendritic cells, macrophages, and sometimes B cells), and they don't secrete histamine (that's released by mast cells and basophils in allergic responses).

3. Which of the following is NOT a segment of the colon?

- A. Ascending
- B. Transverse
- C. Cecum**
- D. Sigmoid

The main idea here is knowing which parts belong to the colon. The colon has four main segments: ascending, transverse, descending, and sigmoid. The cecum sits at the very start of the large intestine as a pouch that receives material from the ileum through the ileocecal valve. It is not a segment of the colon itself. So, the cecum is the part that is not a colon segment, while the ascending, transverse, and sigmoid are actual parts of the colon.

4. Oxygen-rich blood from the lungs enters the heart via which vessels?

- A. Aorta
- B. Pulmonary veins**
- C. Superior vena cava
- D. Pulmonary arteries

Oxygen-rich blood from the lungs returns to the heart through the pulmonary veins, delivering it to the left atrium. This vessel set is unique because, in the pulmonary circuit, veins carry oxygenated blood back to the heart, unlike most systemic veins. From the left atrium, blood moves to the left ventricle and then into the aorta to nourish the body. In contrast, the aorta carries oxygenated blood away from the heart to the body, the superior vena cava brings deoxygenated blood from the upper body to the right atrium, and the pulmonary arteries carry deoxygenated blood from the right ventricle to the lungs.

5. What is the structure and function of the mesenteries?

- A. Double sheets of peritoneal membrane that stabilize the positions of attached organs**
- B. A single layer of tissue that lines the abdominal cavity
- C. A network of nerves supplying the gut
- D. A muscular sling supporting the intestines

Double sheets of peritoneal membrane that suspend the intestines and provide routes for blood vessels, nerves, and lymphatics. The mesentery consists of two layers of peritoneum with a connective-tissue core that often contains fat, and it anchors the gut to the posterior abdominal wall while enabling the gut to move during digestion. This arrangement stabilizes the positions of the attached organs yet allows flexible movement, and it supplies the gut with its blood supply, nerves, and lymphatic drainage via the vessels that run through the mesentery. It's not a single-layer lining, not a network of nerves, and not a muscular sling, which is why the double-layer, conduit-rich description best fits its structure and function.

6. Stellate phagocytic liver cells are called what?

- A. Kupffer cells**
- B. Hepatocytes
- C. Stellate cells
- D. Endothelial cells

Kupffer cells are the liver's resident macrophages that line the sinusoids and perform phagocytosis. They patrol the blood in the portal circulation, engulf bacteria, old blood cells, and debris, and help initiate immune responses by presenting antigens. The term "stellate" here describes their shape and location along the sinusoidal lining, not to be confused with hepatic stellate (Ito) cells that store vitamin A and contribute to fibrosis. Hepatocytes are the main metabolic parenchymal cells, not phagocytes; endothelial cells line the sinusoids but do not serve as the primary phagocytes.

7. Which region is located between the hyoid bone and the entrance to the larynx?

- A. Nasopharynx
- B. Laryngopharynx**
- C. Oropharynx
- D. Esophagus

Think of the pharynx as three zones with distinct boundaries. The laryngopharynx (hypopharynx) sits behind the larynx and runs from the epiglottis downward to where the esophagus begins. The hyoid bone serves as a superior landmark in this region, and the area ends at the laryngeal inlet (the entrance to the larynx). So the region located between the hyoid bone and the entrance to the larynx is the laryngopharynx. This part guides swallowed material toward the esophagus and is continuous with the esophagus below and the epiglottis/larynx above.

8. Antibodies transferred across the placenta to protect the fetus illustrate which type of adaptive immunity?

- A. Artificially acquired active immunity
- B. Naturally acquired active immunity
- C. Artificially acquired passive immunity
- D. Naturally acquired passive immunity**

This scenario is about passive immunity, where the recipient gains antibodies without making them in response to an antigen. When maternal antibodies cross the placenta, the fetus receives those antibodies directly from the mother, so the fetus isn't mounting its own immune response. Because this transfer happens naturally during pregnancy, it's naturally acquired. It's also temporary, since the maternal antibodies decline over time and no lasting immune memory is established in the fetus. In contrast, active immunity would involve the fetus producing its own antibodies and memory cells after infection or vaccination, and artificial immunity would come from medical interventions rather than natural maternal transfer.

9. Which set lists all three major lymphocyte classes that circulate in blood?

- A. T cells and B cells
- B. T cells, B cells, NK cells**
- C. NK cells
- D. B cells and NK cells

Three major lymphocyte classes circulate in blood: T cells, B cells, and natural killer cells. T cells coordinate cell-mediated immunity and mature in the thymus; B cells produce antibodies and drive humoral immunity; NK cells provide rapid, nonspecific cytotoxic responses against virus-infected or transformed cells. The set that lists all three together is the correct one because it fully represents the major circulating lymphocytes. Sets that omit one class miss a key component of the lymphocyte population, making them incomplete. So this option is the best because it includes T cells, B cells, and NK cells.

10. What is the primary function of antigen-presenting cells (APCs) in the immune response?

- A. Produce antibodies
- B. Present antigens to T cells**
- C. Phagocytose bacteria
- D. Secrete histamine

Antigen-presenting cells serve as the link between recognizing a threat and starting the targeted immune response by taking up a pathogen, processing its proteins, and displaying peptide fragments on MHC class II molecules to CD4+ helper T cells. This presentation is the signal that activates helper T cells, which then coordinate the rest of the adaptive response—helping B cells make antibodies and aiding cytotoxic T cells in killing infected cells. Dendritic cells are especially potent at this, with macrophages and B cells also acting as APCs in different contexts. Producing antibodies is the job of plasma cells derived from B cells, not the APCs themselves. While APCs can perform phagocytosis, the defining, primary role in initiating adaptive immunity is presenting antigens to T cells. Secreting histamine is a function of mast cells and basophils, not APCs.

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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://ap2exam3.examzify.com>

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

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