

City and Guilds Animal Management Level 3 Biological Systems Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

This is a sample study guide. To access the full version with hundreds of 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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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!

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Questions

- 1. What type of bones are primarily associated with weight support and movement?**
 - A. Flat bones**
 - B. Long bones**
 - C. Short bones**
 - D. Irregular bones**
- 2. What is the role of radiation in thermoregulation for reptiles?**
 - A. Increasing circulation**
 - B. Absorbing heat from surrounding air**
 - C. Changing body color to enhance UV absorption**
 - D. Transferring heat from warm surfaces**
- 3. What is the function of the liver in maintaining homeostasis?**
 - A. Regulating blood water concentration**
 - B. Controlling blood glucose levels**
 - C. Producing digestive enzymes**
 - D. Filtering out toxins**
- 4. Which of the following adaptations do rabbits have for jumping?**
 - A. Shock absorbers in feet**
 - B. Compact neck vertebrae**
 - C. Elongated skulls**
 - D. Thinner bones**
- 5. What components make up the circulatory system?**
 - A. Heart, lungs, blood**
 - B. Heart, arteries, veins, blood**
 - C. Arteries, capillaries, and respiratory organs**
 - D. Heart, kidneys, and digestive organs**

- 6. What is the primary function of the lungs in the human body?**
- A. Exchange oxygen for carbon dioxide**
 - B. Remove waste carbon dioxide from the blood**
 - C. Regulate body temperature**
 - D. Filter toxins from the bloodstream**
- 7. What is the primary function of adrenaline released by the adrenal glands?**
- A. Regulate metabolism**
 - B. Prepare the body for action**
 - C. Stimulate milk production**
 - D. Maintain blood sugar levels**
- 8. What type of cells are neurons?**
- A. Muscle cells**
 - B. Nerve cells**
 - C. Blood cells**
 - D. Connective cells**
- 9. How do endotherms manage their metabolic processes when overheating?**
- A. Increase metabolic rate**
 - B. Decrease metabolic rate**
 - C. Remain inactive**
 - D. Increase breathing rate**
- 10. What primarily fuels the activity of ectotherms?**
- A. Their external environment**
 - B. Internal metabolic processes**
 - C. Stored body fat**
 - D. Dietary energy from proteins**

Answers

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

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Explanations

1. What type of bones are primarily associated with weight support and movement?

- A. Flat bones**
- B. Long bones**
- C. Short bones**
- D. Irregular bones**

Long bones are primarily associated with weight support and movement due to their structural characteristics and function within the skeletal system. They are typically longer than they are wide, with a shaft (diaphysis) that contains the medullary cavity, where bone marrow is stored. Long bones, such as the femur, tibia, and humerus, play a crucial role in facilitating movement by providing levers for muscles to act upon. Additionally, these bones are designed to bear weight and withstand the forces exerted during activities such as walking, running, and jumping. The dense and heavy nature of long bones also contributes to their strength, allowing them to support the weight of the body and provide stability during movement. This functional aspect distinguishes them from other types of bones, each of which has different roles in the body.

2. What is the role of radiation in thermoregulation for reptiles?

- A. Increasing circulation**
- B. Absorbing heat from surrounding air**
- C. Changing body color to enhance UV absorption**
- D. Transferring heat from warm surfaces**

The correct role of radiation in thermoregulation for reptiles involves absorbing heat from the surrounding environment, which is essential for maintaining their body temperature. Reptiles are ectothermic animals, meaning they rely on external sources of heat rather than generating it internally. By absorbing radiation, especially from the sun, reptiles can warm their bodies to the necessary temperatures for vital metabolic processes. Radiation plays a significant role in thermoregulation as it allows reptiles to effectively harness energy from their environment. This method of heat absorption is crucial since reptiles often occupy habitats with varying temperatures throughout the day. While changing body color can affect absorption rates of different wavelengths of light, it is not the primary mechanism of thermoregulation through radiation. Therefore, the focus should be on how radiation facilitates heat absorption rather than merely altering color for UV absorption, which may not have a direct impact on their thermoregulatory behaviors compared to radiative heat acquisition.

3. What is the function of the liver in maintaining homeostasis?

- A. Regulating blood water concentration**
- B. Controlling blood glucose levels**
- C. Producing digestive enzymes**
- D. Filtering out toxins**

The liver plays a crucial role in maintaining homeostasis, particularly through the regulation of blood glucose levels. It performs this function by storing glucose as glycogen when blood glucose levels are high and releasing glucose back into the bloodstream when levels drop. This balancing act ensures that the body has a stable supply of energy and helps to prevent fluctuations that could lead to conditions such as hypoglycemia or hyperglycemia. While the liver does have other important functions, such as filtering toxins and contributing to digestion by producing bile, its central role in glucose homeostasis is vital for overall metabolic regulation. By adjusting the amount of glucose released or absorbed, the liver helps maintain the balance necessary for various bodily systems to operate effectively.

4. Which of the following adaptations do rabbits have for jumping?

- A. Shock absorbers in feet**
- B. Compact neck vertebrae**
- C. Elongated skulls**
- D. Thinner bones**

Rabbits have specialized adaptations that enable them to excel at jumping, and one of these adaptations includes shock absorbers in their feet. The feet of rabbits are designed with a structure that helps to cushion the impact when they land after a jump. This adaptation is crucial because it allows them to absorb the shock from high jumps, reducing the risk of injury and improving their agility and speed. By effectively dealing with the stresses of jumping, rabbits can quickly flee from predators, making this adaptation an essential survival trait. The other adaptations mentioned do not play a direct role in their jumping ability. For instance, compact neck vertebrae or elongated skulls are more related to head stability or movement, while thinner bones might impact their overall skeletal strength, which is not beneficial for the force exerted during jumping. The presence of shock absorbers, therefore, is key to understanding how rabbits efficiently manage the physical demands of their powerful leaps.

5. What components make up the circulatory system?

- A. Heart, lungs, blood**
- B. Heart, arteries, veins, blood**
- C. Arteries, capillaries, and respiratory organs**
- D. Heart, kidneys, and digestive organs**

The components that make up the circulatory system include the heart, arteries, veins, and blood. The heart functions as the central pump that propels blood throughout the body. Arteries are responsible for carrying oxygen-rich blood away from the heart to the tissues, while veins return deoxygenated blood back to the heart. Blood serves as the medium through which nutrients, gases, hormones, and waste products are transported. This choice accurately reflects the structure and function of the circulatory system, which is critical for maintaining homeostasis in the body. The combination of these elements ensures that oxygen and nutrients are efficiently delivered to cells, while waste products are removed. Understanding this relationship helps to illustrate the importance of each component in sustaining life and supporting various biological functions.

6. What is the primary function of the lungs in the human body?

- A. Exchange oxygen for carbon dioxide**
- B. Remove waste carbon dioxide from the blood**
- C. Regulate body temperature**
- D. Filter toxins from the bloodstream**

The primary function of the lungs in the human body is to exchange gases, specifically to take in oxygen and expel carbon dioxide. This gas exchange occurs in the alveoli, tiny air sacs in the lungs where oxygen from inhaled air passes into the bloodstream, and carbon dioxide, a waste product produced by cells during metabolism, is released from the blood to be exhaled. While removing waste carbon dioxide from the bloodstream is an important function of the lungs, it's part of the broader gas exchange process. The lungs do not directly remove carbon dioxide from the blood; instead, they facilitate oxygen uptake and carbon dioxide release through breathing. Therefore, the emphasis should be on the gas exchange process itself as the lungs primarily work to ensure that oxygen enters the body and carbon dioxide is expelled. The other options, such as regulating body temperature and filtering toxins from the bloodstream, are not primary functions of the lungs. The body has other systems, such as the skin and the liver, that handle temperature regulation and detoxification, respectively. Thus, the most accurate description of the lungs' primary function centers on their role in the exchange of oxygen and carbon dioxide.

7. What is the primary function of adrenaline released by the adrenal glands?

A. Regulate metabolism

B. Prepare the body for action

C. Stimulate milk production

D. Maintain blood sugar levels

The primary function of adrenaline, also known as epinephrine, released by the adrenal glands is to prepare the body for action. This hormone is a crucial component of the body's "fight or flight" response, which is activated in stressful situations. When adrenaline is released into the bloodstream, it triggers a range of physiological changes that enhance the body's ability to respond to perceived threats. These changes include increasing heart rate, raising blood pressure, and boosting energy supply by facilitating the breakdown of glycogen into glucose for immediate energy. Additionally, adrenaline dilates air passages in the lungs and opens up blood vessels to essential muscles, allowing for improved oxygen delivery and physical performance. Therefore, this preparation for action is vital for survival in emergency situations, making the role of adrenaline central to how the body responds to stress and danger.

8. What type of cells are neurons?

A. Muscle cells

B. Nerve cells

C. Blood cells

D. Connective cells

Neurons are specialized cells that make up the nervous system and are primarily responsible for transmitting information throughout the body. They are designed to receive and send electrical signals, enabling communication between different parts of the body, as well as processing and interpreting sensory information. Neurons differ significantly from muscle cells, which are responsible for contraction and movement, and from blood cells, which are vital for transporting oxygen and nutrients or fighting infections. Additionally, connective cells function to support, bind, and protect other tissues and organs in the body, which is a different role altogether. The unique structure of neurons, including dendrites, axons, and synapses, equips them for their specific function in communication, distinguishing them clearly as nerve cells. Therefore, identifying neurons as nerve cells underlines their crucial role in the complexities of the nervous system.

9. How do endotherms manage their metabolic processes when overheating?

- A. Increase metabolic rate**
- B. Decrease metabolic rate**
- C. Remain inactive**
- D. Increase breathing rate**

Endotherms, or warm-blooded animals, regulate their body temperature through various physiological processes. When they begin to overheat, the primary strategy employed is to decrease their metabolic rate. This reduction helps diminish the internal heat generated by metabolic processes and is complemented by other mechanisms like seeking shade or increasing water intake. By lowering their metabolic rate, endotherms can effectively manage excess body heat and maintain homeostasis. This is essential because overheating can lead to cellular damage and other physiological stress responses. Other responses, such as increasing breathing rate, may also occur to facilitate heat loss, but the core adjustment to mitigate overheating involves controlling metabolic activity, hence the decrease in metabolic rate is a key response in this scenario.

10. What primarily fuels the activity of ectotherms?

- A. Their external environment**
- B. Internal metabolic processes**
- C. Stored body fat**
- D. Dietary energy from proteins**

Ectotherms, also known as cold-blooded animals, primarily rely on their external environment to regulate their body temperature and fuel their activities. Unlike endotherms, which generate heat through internal metabolic processes to maintain a constant body temperature, ectotherms depend on environmental sources such as sunlight or ambient temperatures to increase their body heat. For instance, when a lizard basks in the sun, it absorbs heat that allows its metabolic activities to ramp up, making it more agile and active. As a result, the external environment plays a critical role in the physiological functioning of ectotherms, fundamentally influencing their behavior, movement, and hunting strategies. While internal metabolic processes, stored body fat, and dietary energy do play roles in the life of ectotherms, they are not the primary source of energy to fuel their daily activities. The dependency on external environmental conditions for energy and heat is a defining characteristic of ectothermic physiology.

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://cityandguildsanimalmgmtlvl3biosys.examzify.com>

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