

GMAS BIOLOGY PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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. A body cavity that is not completely lined by tissue derived from mesoderm is called what?**
 - A. Pseudocoelom
 - B. Coelom
 - C. Endoskeleton
 - D. Exoskeleton
- 2. Observations that are/can be measured.**
 - A. Qualitative Observation
 - B. Theory
 - C. Quantitative Observation
 - D. Development
- 3. The body cavity that is not completely lined by mesoderm-derived tissue is called what?**
 - A. Coelom
 - B. Endoskeleton
 - C. Exoskeleton
 - D. Pseudocoelom
- 4. Which scientist is associated with the concept of inheritance of acquired characteristics?**
 - A. Charles Darwin
 - B. Gregor Mendel
 - C. Lamarck
 - D. Alfred Wallace
- 5. Which term describes large terrestrial regions of the earth with distinct climate and characteristic species?**
 - A. Ecosystems
 - B. Biomes
 - C. Habitats
 - D. Regions

- 6. A pure substance made of only one kind of atom.**
- A. Compound
 - B. Atom
 - C. Molecule
 - D. Element
- 7. Which graph describes exponential growth patterns with no apparent limits?**
- A. J Curve Graph
 - B. S Curve Graph
 - C. Exponential Growth Graph
 - D. Linear Growth Graph
- 8. Population growth that is controlled by limited resources is called what?**
- A. Exponential growth
 - B. J Curve growth
 - C. Random growth
 - D. Logistic growth
- 9. Which type of limiting factor affects all populations in similar ways, regardless of their size?**
- A. Density independent factor
 - B. Density dependent factor
 - C. Carrying capacity
 - D. Birth rate
- 10. Place where an organism lives is called what?**
- A. Ecosystem
 - B. Habitat
 - C. Glucose
 - D. Photosynthesis

Answers

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

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Explanations

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1. A body cavity that is not completely lined by tissue derived from mesoderm is called what?

- A. Pseudocoelom**
- B. Coelom
- C. Endoskeleton
- D. Exoskeleton

This question tests how the lining of a body cavity distinguishes different animal groups. A cavity that is not completely lined by tissue derived from mesoderm is called a pseudocoelom, a “false” body cavity. In pseudocoelomates, the gut is lined by endoderm, while the outer part of the body cavity is lined by mesoderm, so the cavity isn’t entirely surrounded by mesoderm-derived tissue. This contrasts with a true coelom, which is entirely lined by mesoderm and forms a true body cavity in coelomates. Exoskeleton and endoskeleton describe skeletal support, not cavities, so they aren’t the right fit here.

2. Observations that are/can be measured.

- A. Qualitative Observation
- B. Theory
- C. Quantitative Observation**
- D. Development

Quantitative observation centers on measurements and numbers. It involves collecting data that can be quantified with units, like length, mass, temperature, time, or counts. This type of observation lets you compare data precisely and analyze it statistically—for example, recording that a plant grew 12 cm in a week or that 25 leaves were counted on a sample plant. Qualitative observations, by contrast, describe properties without numbers—color, shape, texture. A theory is an explanation, not an observation. Development refers to growth or change over time, a process rather than a specific measured quantity. When a prompt asks for observations that can be measured, quantitative observation is the best fit because it focuses on numerical data.

3. The body cavity that is not completely lined by mesoderm-derived tissue is called what?

- A. Coelom
- B. Endoskeleton
- C. Exoskeleton
- D. Pseudocoelom**

In this concept, what defines a body cavity is whether it is completely lined by mesoderm-derived tissue. A true coelom is a body cavity that the mesoderm fully surrounds, forming a complete lining. When the cavity is not entirely lined by mesoderm—sitting between the endoderm and the mesoderm—the structure is called a pseudocoelom. The term “pseudo” means false, reflecting that the lining isn’t complete. This is seen in organisms like nematodes, where the gut is lined by endoderm, the outer body wall by mesoderm, and the cavity in between is the pseudocoelom. The other terms refer to skeletal supports (endoskeleton, exoskeleton) or to the true coelom concept, not to the specific cavity that isn’t fully mesoderm-lined.

4. Which scientist is associated with the concept of inheritance of acquired characteristics?

- A. Charles Darwin
- B. Gregor Mendel
- C. Lamarck**
- D. Alfred Wallace

The concept being tested is inheritance of acquired characteristics—the idea that traits developed or modified during an organism's life could be passed on to its offspring. This was proposed by Jean-Baptiste Lamarck, who argued that if an organism used a feature more and it changed, that change could be inherited by its descendants. A classic example is the idea that giraffes stretched their necks to reach higher leaves and, over generations, necks became longer. This view contrasts with Darwin and Wallace's idea of natural selection, where evolution happens because individuals with heritable variation survive and reproduce more, not because traits acquired during life are transmitted. It also differs from Mendel's work on genetics, which shows inheritance operates through discrete units of heritable information (genes) rather than acquired changes. In modern biology, Lamarck's mechanism isn't supported as a general rule, though some limited epigenetic effects can influence gene expression in offspring in specific contexts, they don't constitute the classic inheritance of acquired characteristics.

5. Which term describes large terrestrial regions of the earth with distinct climate and characteristic species?

- A. Ecosystems
- B. Biomes**
- C. Habitats
- D. Regions

Biomes are large land areas defined mainly by climate and the characteristic communities of plants and animals they support. The climate—patterns of temperature and precipitation—shapes the dominant vegetation, and that vegetation, in turn, determines the animal life that can thrive there, creating distinct, recognizable regions such as deserts, tropical forests, temperate forests, grasslands, and tundra that can span multiple continents. An ecosystem focuses on the interactions within a specific place, from a pond to a forest, and can exist within a biome; a habitat is the immediate environment where an individual organism lives. A region is a general geographic area and isn't a precise biological term. So the term that best describes these large terrestrial regions with distinct climate and characteristic species is biomes.

6. A pure substance made of only one kind of atom.

- A. Compound
- B. Atom
- C. Molecule
- D. Element**

Think about what defines a pure substance by its composition. An element is a pure substance that contains only one kind of atom. That means every particle in the sample is the same type of atom, though those atoms can join to form molecules—for example, oxygen gas (O₂) is still an element because both atoms are oxygen. A compound would involve more than one kind of atom chemically bonded together, so it isn't made of a single kind of atom. A molecule is simply a group of atoms bonded together and can be made from either one element or multiple elements, so it describes structure rather than the purity of the substance. An atom is the basic unit, but the term describing a pure substance consisting of one kind of atom is element.

7. Which graph describes exponential growth patterns with no apparent limits?

- A. J Curve Graph**
- B. S Curve Graph
- C. Exponential Growth Graph
- D. Linear Growth Graph

Exponential growth occurs when the amount increases by a constant proportion in each time interval, so as the number grows, the amount added each step gets larger. When you plot that over time, the curve starts off modestly and then rises more and more steeply, creating a J-shaped graph. This shape reflects growth without a visible ceiling—no limits are imposed in the simple model, so the line keeps bending upward faster and faster. By contrast, a straight-line graph shows linear growth with a constant rate of increase, and an S-shaped (logistic) graph starts fast but then levels off as resources or other factors limit growth. So the J-curve graph best captures exponential growth patterns with no apparent limits.

8. Population growth that is controlled by limited resources is called what?

- A. Exponential growth
- B. J Curve growth
- C. Random growth
- D. Logistic growth**

When resources are limited, population growth follows a pattern that starts quickly but slows as crowding increases. The environment can support only a certain number of individuals over time, called the carrying capacity. As the population nears that limit, competition for food, space, and mates ramps up, causing birth rates to fall or death rates to rise, so the net growth slows until it levels off at carrying capacity. This creates the characteristic S-shaped, or logistic, growth curve. It contrasts with exponential growth, which would keep accelerating if there were unlimited resources, and with a J-shaped idea that implies unchecked rise. Random growth isn't a standard model for how real populations respond to limited resources.

9. Which type of limiting factor affects all populations in similar ways, regardless of their size?

- A. Density independent factor**
- B. Density dependent factor
- C. Carrying capacity
- D. Birth rate

Limiting factors regulate how populations grow, and they fall into two main types. The one that affects populations in the same way regardless of how many individuals are present is density-independent. This means its impact does not depend on population size. Abiotic events such as droughts, floods, fires, freezes, and other weather-related disasters, as well as habitat destruction from human activity, can reduce numbers by a similar amount whether a population is small or large. Density-independent factors push population changes in a way that doesn't scale with how crowded the area is. By contrast, density-dependent factors like competition for resources, predation, and disease become more influential as population density increases, helping regulate growth more when there are more individuals. Carrying capacity is the maximum population size the environment can sustain over time, not a type of limiting factor itself, and birth rate is a demographic component of growth, not a distinct limiting-factor category.

10. Place where an organism lives is called what?

- A. Ecosystem
- B. Habitat**
- C. Glucose
- D. Photosynthesis

Where an organism lives is its habitat. Habitat refers to the specific place or type of environment that provides the conditions and resources an organism needs to survive, such as shelter, food, water, and the right climate. This is about the location itself, not the broader interactions in a region (which would be an ecosystem), and it's not a substance or process like glucose or photosynthesis. So the place an organism lives is called its habitat.

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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://gmasbiology.examzify.com>

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

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