

NCEA Level 3 Biology - Human Evolution (AS91606) Practice Exam (Sample)

Study Guide



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

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- 1. What distinguishes populations that lived in settled societies from hunter-gatherers?**
 - A. Use of fire**
 - B. Diverse tool-making techniques**
 - C. Cultivation of crops and domestication of animals**
 - D. Migration patterns**

- 2. What are hominids and their relation to human evolution?**
 - A. A family of mammals that only includes humans**
 - B. A family of great apes sharing a common ancestor with humans**
 - C. A group of fish that evolved into amphibians**
 - D. A separate lineage that does not connect to humans**

- 3. What critical development is associated with the use of fire in early humans?**
 - A. Improved hunting techniques**
 - B. Cultural ceremonies and practices**
 - C. Cooking food for better nutrition**
 - D. Social gatherings for communal living**

- 4. What advantage do shorter pelvis structures provide?**
 - A. Better climbing ability**
 - B. Increased speed in running**
 - C. Able to tilt and rotate during walking**
 - D. Enhanced balance**

- 5. What role did climate change play in human evolution?**
 - A. It led to the increase in hominin population**
 - B. It had no significant impact on human evolution**
 - C. It influenced resource availability and habitat shifts**
 - D. It caused a decrease in human adaptability**

- 6. Which of the following benefits is NOT associated with the discovery of fire by early humans?**
- A. Keeping warm**
 - B. Building shelters**
 - C. Lengthening the day**
 - D. Keeping predators away**
- 7. What does it mean for a population to be nomadic?**
- A. They settle permanently.**
 - B. They regularly move in search of resources.**
 - C. They practice farming.**
 - D. They engage in trade.**
- 8. What is the term for the differences observed between male and female skeletons?**
- A. Sexual dimorphism**
 - B. Bipedal adaptations**
 - C. Sexual selection**
 - D. Gender variance**
- 9. What does the term "Cultural Evolution" refer to in terms of human evolution?**
- A. The physical evolution of human beings**
 - B. The development of social behaviors and technologies**
 - C. The decline of technological advancements**
 - D. The migration of humans to different continents**
- 10. What anatomical feature is primarily involved with the mechanics of chewing in humans?**
- A. Mandible**
 - B. Zygomatic arch**
 - C. Cranial base**
 - D. Nasal cavity**

Answers

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

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Explanations

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1. What distinguishes populations that lived in settled societies from hunter-gatherers?

- A. Use of fire
- B. Diverse tool-making techniques
- C. Cultivation of crops and domestication of animals**
- D. Migration patterns

Populations that lived in settled societies are primarily distinguished by their practice of agriculture, which includes the cultivation of crops and domestication of animals. This significant shift in lifestyle allowed these societies to establish permanent settlements, as they no longer needed to follow the migratory patterns associated with hunting and gathering. The practice of farming enabled a stable food supply, which led to population growth and the development of complex social structures, including organized communities and divisions of labor. In contrast, hunter-gatherers relied on foraging and hunting wild resources, which necessitated frequent movement to find food. While the use of fire, tool-making techniques, and migration patterns are important aspects of human behavior and adaptation, they do not specifically characterize the transition from a nomadic lifestyle to a settled agricultural one as clearly as the cultivation of crops and domestication of animals. These agricultural practices are foundational to the development of civilizations, making them a key distinguishing feature of settled societies.

2. What are hominids and their relation to human evolution?

- A. A family of mammals that only includes humans
- B. A family of great apes sharing a common ancestor with humans**
- C. A group of fish that evolved into amphibians
- D. A separate lineage that does not connect to humans

Hominids are classified as a family of primates that includes modern humans, their ancestors, and other great apes such as chimpanzees, bonobos, gorillas, and orangutans. The correct answer emphasizes that hominids share a common ancestor with humans, which is crucial for understanding human evolution. This family of mammals illustrates the branching tree of evolution, where species diverged from a common lineage over millions of years. The significance of this shared ancestry lies in the evolutionary adaptations that occurred within the hominid lineage that ultimately led to the development of traits and features distinguishing humans, such as bipedalism, larger brain size, and the use of sophisticated tools. Furthermore, studying the genetic and fossil evidence of hominids provides insights into how humans have evolved in response to changing environments and selective pressures over time. In essence, recognizing hominids as a family that includes both humans and our closest relatives allows for a comprehensive understanding of our biological history and the evolutionary processes that shaped our species.

3. What critical development is associated with the use of fire in early humans?

- A. Improved hunting techniques
- B. Cultural ceremonies and practices
- C. Cooking food for better nutrition**
- D. Social gatherings for communal living

The use of fire in early humans is crucially linked to cooking food for improved nutrition. Cooking not only makes food easier to digest but also increases the bioavailability of nutrients, allowing early humans to extract more energy from their food. This increased caloric intake would have significant implications for brain development and overall health, enhancing survival and reproductive success. Cooking also has broader implications beyond nutrition. While improved hunting techniques, cultural practices, and social gatherings may also be associated with fire use, it is the act of cooking that fundamentally transformed the human diet and supported evolutionary changes in physiology and social behavior. The ability to cook food is considered one of the key adaptations that helped shape human life, leading to larger brains and a shift in lifestyle from foraging to more complex forms of social structure.

4. What advantage do shorter pelvis structures provide?

- A. Better climbing ability
- B. Increased speed in running
- C. Able to tilt and rotate during walking**
- D. Enhanced balance

Shorter pelvis structures provide the advantage of being able to tilt and rotate during walking. This mobility is crucial for efficient bipedal locomotion, as it allows for a more effective stride and helps maintain balance and stability while moving upright. The design of a shorter pelvis facilitates a wider range of motion in the hip joints, which is essential for transferring weight from one leg to the other, allowing for smooth and coordinated movements. In the context of human evolution, the adaptations associated with walking on two legs have led to changes in pelvis shape, which in turn influences gait and the ability to walk long distances efficiently. This feature promotes effective bipedalism, enhancing overall locomotion and supporting the unique mode of movement that characterizes human beings. The other choices, while they may relate to different anatomical aspects or types of locomotion, do not accurately capture the specific functional benefits associated with the structure of a shorter pelvis during walking.

5. What role did climate change play in human evolution?

- A. It led to the increase in hominin population**
- B. It had no significant impact on human evolution**
- C. It influenced resource availability and habitat shifts**
- D. It caused a decrease in human adaptability**

The option stating that climate change influenced resource availability and habitat shifts is correct as it captures a crucial aspect of human evolution. Throughout history, climate fluctuations have dramatically altered ecosystems, leading to changes in the distribution and abundance of resources such as food and water. As climates shifted, early hominins were compelled to adapt to new environments, which often involved changes in their diet, foraging strategies, and social behaviors. Such adaptations were vital for survival and eventually played a significant role in the development of traits associated with modern humans, including increased cognitive abilities, social complexity, and technological innovations. For instance, fluctuations between wet and dry periods could lead to the development of new tools and social structures to exploit varying resources, which were critical for the survival of early human populations. By contrast, other options downplay the positive relationship between climate change and evolutionary adaptation or misconstrue its influence as neutral or negative. Understanding this dynamic illustrates how species, including humans, have continually adapted to changing conditions, making climate change a central factor in our evolutionary history.

6. Which of the following benefits is NOT associated with the discovery of fire by early humans?

- A. Keeping warm**
- B. Building shelters**
- C. Lengthening the day**
- D. Keeping predators away**

The discovery of fire by early humans brought several significant benefits that contributed to their survival and advancement. Among these, keeping warm, lengthening the day, and keeping predators away are well-documented advantages of controlling fire. Keeping warm is crucial for survival, especially in colder climates. Fire provides heat, allowing early humans to endure lower temperatures and expand their habitats. Lengthening the day refers to the ability to use fire for light, enabling activities and social interactions to continue after sunset. Fire also served as a deterrent against predators, who are often wary of flames. On the other hand, building shelters is not directly associated with the discovery of fire. Although fire may enhance conditions within a shelter, such as providing warmth or protection from pests, the primary purpose of fire is not to facilitate shelter construction but rather to support survival activities. Early humans could have constructed various types of shelters using natural materials long before mastering fire. Thus, the association of building shelters with the discovery of fire does not hold as strongly as the other benefits listed.

7. What does it mean for a population to be nomadic?

- A. They settle permanently.
- B. They regularly move in search of resources.**
- C. They practice farming.
- D. They engage in trade.

A nomadic population is characterized by their pattern of regularly moving from one place to another, typically in search of resources such as food, water, and grazing land. This lifestyle is often essential for survival, especially in environments where resources are not consistently available in one location. Nomadic groups adapt to the movement of herds and the seasonal availability of plants and water sources, allowing them to follow the food source or climate variations. In contrast to settling permanently, which refers to establishing a stable home or community in one location, nomadism involves a dynamic way of living that is responsive to environmental changes. Farming practices, which generally require a settled lifestyle with cultivation of land, are incompatible with the nomadic way of life. Similarly, while nomadic populations might engage in trade, trade itself is not a defining characteristic of nomadism—it's their movement and resource-seeking behavior that defines them.

8. What is the term for the differences observed between male and female skeletons?

- A. Sexual dimorphism**
- B. Bipedal adaptations
- C. Sexual selection
- D. Gender variance

The term that describes the differences observed between male and female skeletons is known as sexual dimorphism. This concept refers to the distinct physical differences between the sexes of a species, which can include variations in size, shape, and skeletal structure. In human evolution, these differences can manifest in features such as pelvic shape, skull characteristics, and overall body size, providing insights into the biological roles and reproductive strategies of males and females throughout human history. Bipedal adaptations refer to the evolutionary changes that support walking on two legs, while sexual selection pertains to the process by which certain traits become more or less common depending on an individual's ability to attract mates. Gender variance deals with the social and cultural aspects of gender identity, rather than biological differences in the skeleton. Therefore, sexual dimorphism is the most accurate term to describe the anatomical differences between male and female skeletons.

9. What does the term "Cultural Evolution" refer to in terms of human evolution?

A. The physical evolution of human beings

B. The development of social behaviors and technologies

C. The decline of technological advancements

D. The migration of humans to different continents

The term "Cultural Evolution" in the context of human evolution specifically refers to the development of social behaviors and technologies within human societies. This encompasses how cultural practices, beliefs, tools, and technologies evolve over time through learning, innovation, and social interactions. These advancements can significantly influence human survival, social structures, and interactions with the environment. Cultural evolution is distinct from biological evolution, which focuses more on genetic changes over generations. Instead, it highlights the ways in which knowledge and practices are transmitted both within and between generations, leading to changes that can spread through populations rapidly, sometimes at a pace that outstrips biological changes. This process is crucial for understanding how human societies adapt to challenges, improve their living conditions, and develop complex social structures that can include language, art, and cooperative behaviors—elements that are essential to our identity as humans.

10. What anatomical feature is primarily involved with the mechanics of chewing in humans?

A. Mandible

B. Zygomatic arch

C. Cranial base

D. Nasal cavity

The mandible, or lower jaw, is primarily responsible for the mechanics of chewing in humans. It plays a crucial role as it moves up and down and side to side to grind and crush food, enabling effective mastication. The mandible houses the lower teeth and articulates with the skull at the temporomandibular joint, allowing for the complex movements necessary for chewing. This feature is essential not only for the physical act of eating but also for the overall digestive process, as proper chewing aids in the breakdown of food for easier digestion. In contrast, the zygomatic arch, while providing the cheekbone structure and some muscle attachment points for chewing muscles, does not directly engage in the mechanics of chewing. The cranial base serves as a support for the brain and connection to the spine, and the nasal cavity is involved primarily in respiration, not in the chewing process. Thus, the mandible stands out as the key anatomical feature in the mechanics of human chewing.

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://ncealvl3bioas91606.examzify.com>

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

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