

NCEA Level 3 Biology - Human Evolution (AS91606) Practice Exam (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. In what way did the Ice Ages influence human evolution?**
 - A. They led to extinction of numerous species**
 - B. They forced adaptations to colder climates and migration**
 - C. They restricted technological advancements**
 - D. They allowed for abundant food resources**
- 2. What concept challenges the notion of distinct races in humanity?**
 - A. The idea of genetic diversity on a continuous spectrum**
 - B. The belief in fixed genetic categories**
 - C. The notion of cultural differences defining races**
 - D. The concept of separate evolutionary lineages**
- 3. What is defined as the lower jaw or jawbone?**
 - A. Maxilla**
 - B. Mandible**
 - C. Palatine**
 - D. Tongue**
- 4. What relationship does genetic diversity have with historical migration patterns?**
 - A. It shows how culture changed**
 - B. It demonstrates human adaptability across regions**
 - C. It highlights the stability of communities**
 - D. It limits geographical changes in populations**
- 5. How do hominins demonstrate adaptability to environmental changes?**
 - A. Through the creation of rigid social hierarchies**
 - B. By avoiding changes in behavior and lifestyle**
 - C. Through behavioral changes, tool use, and dietary shifts**
 - D. By relying solely on natural instincts**

- 6. Which of the following best describes the early farmers' lifestyle?**
- A. Relying solely on wild food sources**
 - B. Hunting large game**
 - C. Cultivating crops**
 - D. Constantly migrating**
- 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. How do fossils enhance our understanding of human evolution?**
- A. They can predict future evolution of species**
 - B. They provide insights into living conditions currently**
 - C. They serve as a record of physical changes over time**
 - D. They highlight the social structures of ancient species**
- 9. What is the cultural phase known as the "Old Stone Age" that includes both the Oldowan and Acheulian cultures?**
- A. Upper Palaeolithic**
 - B. Lower Palaeolithic**
 - C. Mesolithic**
 - D. Neolithic**
- 10. What significant impact did Neanderthals have on modern human genetics?**
- A. They had no interaction with modern humans**
 - B. They contributed to genetic variation through interbreeding**
 - C. They created distinct races among humans**
 - D. They eliminated any genetic diversity in human populations**

Answers

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

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Explanations

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1. In what way did the Ice Ages influence human evolution?

- A. They led to extinction of numerous species
- B. They forced adaptations to colder climates and migration**
- C. They restricted technological advancements
- D. They allowed for abundant food resources

The Ice Ages played a crucial role in shaping human evolution by forcing adaptations to colder climates and encouraging migration. During these periods of drastic climate change, human populations faced severe environmental challenges, including lower temperatures and altered landscapes. To survive, early humans had to develop new strategies for obtaining food, shelter, and clothing, which required physiological adaptations such as changes in body size and shape, as well as behavioral adaptations like the use of fire and the development of more sophisticated tools. Additionally, as glacial sheets expanded and contracted, they created barriers and opened up new pathways, influencing the migration of human populations. This movement not only facilitated the spread of cultural knowledge and genetic diversity but also contributed to the establishment of different human groups in various environments, each adapting uniquely to their circumstances. The necessity of coping with these changing conditions significantly influenced the course of human evolution and the development of early societies.

2. What concept challenges the notion of distinct races in humanity?

- A. The idea of genetic diversity on a continuous spectrum**
- B. The belief in fixed genetic categories
- C. The notion of cultural differences defining races
- D. The concept of separate evolutionary lineages

The idea of genetic diversity on a continuous spectrum serves as a robust challenge to the notion of distinct races in humanity because it emphasizes that human variation is not neatly categorized into discrete groups, but rather exists across a gradient. This understanding stems from genetic research, which shows that the majority of human genetic variation occurs within so-called racial groups rather than between them. For example, when studying genetic traits, scientists observe that individuals from different geographical populations may share more genetic similarities than individuals from the same population. This continuous variation indicates that the concept of race is a social construct rather than a reflection of distinct biological differences. The implications of this are significant in discussions about race, ethnicity, and identity, reinforcing the idea that humans are fundamentally unified in terms of genetic makeup and that the categorization of race is overly simplistic. The other concepts, such as fixed genetic categories, cultural differences, and separate evolutionary lineages, do not effectively challenge the idea of distinct races. Fixed categories imply a rigid classification that ignores the fluidity of genetic diversity, while cultural differences can be seen as social constructs that do not align with biological aspects. The concept of separate evolutionary lineages does not apply to modern humans, as all current populations have diverged from a common ancestry and have

3. What is defined as the lower jaw or jawbone?

- A. Maxilla
- B. Mandible**
- C. Palatine
- D. Tongue

The mandible is specifically defined as the lower jaw or jawbone in human anatomy. It is the largest and strongest bone in the face, playing a crucial role in both the structure of the jaw and in the mechanics of chewing. The mandible connects to the skull at the temporomandibular joints near the front of the ear, allowing for a wide range of movements necessary for biting and grinding food. In contrast, the maxilla refers to the upper jawbone, which supports the upper teeth and forms part of the orbit of the eye. The palatine bones are located at the back of the oral cavity and contribute to the structure of the roof of the mouth as well as parts of the nasal cavity and eye sockets. The tongue, while essential for many functions such as tasting, swallowing, and articulation, does not refer to any part of the jaw structure itself. Thus, the mandible is the correct answer as it is directly defined as the lower jawbone.

4. What relationship does genetic diversity have with historical migration patterns?

- A. It shows how culture changed
- B. It demonstrates human adaptability across regions**
- C. It highlights the stability of communities
- D. It limits geographical changes in populations

Genetic diversity is closely linked to historical migration patterns as it demonstrates human adaptability across various regions. When populations migrate, they often encounter new environments with different challenges, such as changes in climate, food sources, and predators. This exposure leads to the selection of traits that are advantageous in those new settings, resulting in adaptations that enhance survival and reproduction. As people move and interbreed with local populations, their genetic variation increases, reflecting the mix of ancestries and genetic contributions from multiple geographic locations. This adaptability is crucial for the survival of species in fluctuating environments, as it provides a broader range of genetic traits that can be beneficial for coping with changes, such as disease resistance or varying climatic conditions. Historical migration events—such as those during the Out of Africa movement—have largely shaped the patterns of genetic diversity we observe in human populations today. This interconnectedness of migration and genetic variability underscores the capacity of humans to thrive in diverse settings, which is crucial for our overall resilience as a species.

5. How do hominins demonstrate adaptability to environmental changes?

- A. Through the creation of rigid social hierarchies**
- B. By avoiding changes in behavior and lifestyle**
- C. Through behavioral changes, tool use, and dietary shifts**
- D. By relying solely on natural instincts**

Hominins exhibit adaptability to environmental changes primarily through behavioral changes, tool use, and dietary shifts. Throughout their evolution, hominins have faced various environmental pressures, such as climate fluctuations and resource availability. To cope with these challenges, they developed adaptive strategies that allowed them to survive and thrive in diverse habitats. Behavioral changes include modifications in social organization, migration patterns, and the ways in which hominins interacted with their environment. Tool use is a critical aspect of their adaptability, as the development and refinement of tools allowed for more efficient food acquisition, shelter construction, and protection against predators. This innovation not only facilitated survival but also enabled hominins to exploit a wider range of resources. Dietary shifts further illustrate this adaptability, as hominins learned to utilize different food sources based on what was available in their environment. For example, the shift from primarily consuming raw plant materials to incorporating meat and the development of cooking methods had significant implications for nutritional intake and population growth. Collectively, these adaptations highlight the dynamic relationship between hominins and their environments, showcasing their ability to change and innovate in response to new challenges.

6. Which of the following best describes the early farmers' lifestyle?

- A. Relying solely on wild food sources**
- B. Hunting large game**
- C. Cultivating crops**
- D. Constantly migrating**

Early farmers are best described by the lifestyle characterized by cultivating crops. This shift towards agriculture marked a significant transition in human history from nomadic hunter-gatherer societies to more settled ways of living. The development of farming techniques allowed early humans to domesticate plants and animals, which led to more stable food supplies and the ability to establish permanent settlements. This transition to agriculture precipitated various social changes, including the development of complex societies, trade networks, and advancements in technology. By cultivating crops, early farmers could sustain larger populations and create surplus food, which in turn supported the development of towns and cities. The other choices reflect different aspects of human behavior prior to this agricultural revolution. Reliance on wild food sources indicates a hunter-gatherer lifestyle, which contrasts with the settled nature of farming. Hunting large game was a facet of this earlier lifestyle and does not encompass the broader practice and benefits of agriculture. Finally, constantly migrating aligns with a nomadic existence that is less compatible with the permanence associated with agricultural societies. Thus, cultivating crops effectively captures the essence of the early farmers' lifestyle.

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. How do fossils enhance our understanding of human evolution?

- A. They can predict future evolution of species
- B. They provide insights into living conditions currently
- C. They serve as a record of physical changes over time**
- D. They highlight the social structures of ancient species

Fossils enhance our understanding of human evolution by serving as a record of physical changes over time. They capture the anatomical characteristics of our ancestors and relatives, allowing researchers to trace the gradual transformations in size, shape, and structure across different species. This record reveals key adaptations that occurred in response to environmental pressures, such as changes in climate, diet, and locomotion. By studying these changes in the fossilized remains, scientists can construct a more comprehensive picture of how modern humans have evolved from earlier primate ancestors. The other options do not accurately reflect the primary function of fossils in the study of evolution. While fossils can provide context about the environments where these species lived, they do not predict future evolutionary changes or directly highlight social structures. Their most significant contribution lies in documenting the physical evidence of evolutionary processes over time.

9. What is the cultural phase known as the "Old Stone Age" that includes both the Oldowan and Acheulian cultures?

- A. Upper Palaeolithic**
- B. Lower Palaeolithic**
- C. Mesolithic**
- D. Neolithic**

The cultural phase referred to as the "Old Stone Age" encompasses two significant prehistoric cultures: Oldowan and Acheulian. This period is characterized by the development of early stone tools used by hominins, marking them as key to human evolution. The Oldowan, known for its simple chipped stone tools, represents the earliest known tool culture, while the Acheulian is recognized for more advanced bifacial tools, including hand axes. This period is classified as the Lower Paleolithic, which spans approximately 2.6 million years ago to about 300,000 years ago, covering the time when our earliest human ancestors began to make and use stone tools. The technologies developed during this time laid the groundwork for subsequent advancements in human culture and tool-making. The Upper Paleolithic, in contrast, follows the Lower Paleolithic and is characterized by more complex tools and art forms, while the Mesolithic refers to the transitional period between the Paleolithic and Neolithic, marked by a change in lifestyle and technology as humans adapted to different environments and began to exploit a wider range of food sources. The Neolithic period, on the other hand, is noted for the advent of agriculture and permanent settlements. In essence, recognizing the Old Stone Age as part of the

10. What significant impact did Neanderthals have on modern human genetics?

- A. They had no interaction with modern humans**
- B. They contributed to genetic variation through interbreeding**
- C. They created distinct races among humans**
- D. They eliminated any genetic diversity in human populations**

Neanderthals had a significant impact on modern human genetics primarily through interbreeding, which has contributed to genetic variation in contemporary human populations. Genetic studies have shown that non-African modern humans carry approximately 1-2% of Neanderthal DNA, indicating that after modern humans migrated out of Africa, they encountered Neanderthals in Europe and Asia. This interaction resulted in the mixing of genes, which introduced new alleles into the gene pool of early modern humans. These Neanderthal gene variants can influence various traits, including immune response and skin pigmentation. This contribution enhances the genetic diversity within the human species, allowing for a broader range of adaptability to different environments and diseases. The interaction between Neanderthals and modern humans illustrates the complex web of human ancestry and evolution, underscoring the importance of interspecies relationships in shaping the genetic landscape we see today.

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!