

NEET BIOLOGY PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE

<https://neetbiology.examzify.com>



Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	5
Answers	8
Explanations	10
Next Steps	15

SAMPLE

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

SAMPLE

- 1. Name the largest organ in the human body.**
 - A. Heart
 - B. Skin
 - C. Liver
 - D. Lungs
- 2. Who proposed the theory of inheritance of acquired characters?**
 - A. Darwin
 - B. Lamarck
 - C. Weismann
 - D. Wallace
- 3. Which types of organisms are known to produce carbohydrates, the most abundant biomolecules on Earth?**
 - A. Bacteria, fungi, and animals
 - B. Bacteria, algae, and green plant cells
 - C. Algae, fungi, and animals
 - D. Only plants and algae
- 4. Which macromolecule plays a crucial role in cell signaling and forms biological membranes?**
 - A. Proteins
 - B. Carbohydrates
 - C. Nucleic acids
 - D. Lipids
- 5. What type of symbiotic relationship benefits one organism while harming the other?**
 - A. Mutualism
 - B. Commensalism
 - C. Parasitism
 - D. Cooperation

- 6. Which method has been recently used to more accurately determine the age of fossils?**
- A. Potassium-Argon Dating
 - B. Electron Spin Resonance (ESR)
 - C. Carbon Dating
 - D. Thermoluminescence Dating
- 7. What is the function of enzymes in biological reactions?**
- A. To provide energy for reactions
 - B. To act as catalysts and speed up reactions
 - C. To inhibit chemical reactions
 - D. To create energy molecules
- 8. In animals, where does gas exchange typically occur?**
- A. Muscles
 - B. Heart
 - C. Lungs
 - D. Kidneys
- 9. What is the primary function of the endoplasmic reticulum?**
- A. Energy production
 - B. Cell division
 - C. Synthesis and transport of proteins and lipids
 - D. Storage of genetic material
- 10. Name the protein that helps in the transport of oxygen in the blood.**
- A. Albumin
 - B. Myoglobin
 - C. Hemoglobin
 - D. Globulin

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Name the largest organ in the human body.

- A. Heart
- B. Skin**
- C. Liver
- D. Lungs

The skin is indeed the largest organ in the human body. It performs several critical functions that are essential for overall health and well-being. The primary role of the skin is to act as a protective barrier, preventing pathogens, chemicals, and physical injuries from entering the body. Additionally, it helps regulate body temperature through mechanisms like sweating and blood vessel dilation or constriction. The skin also plays a vital role in sensory perception, allowing us to feel touch, pain, temperature, and pressure. Covering approximately 1.5 to 2 square meters in adults and accounting for about 15% of total body weight, it surpasses other organs in size. In contrast, while the heart, liver, and lungs are crucial organs within the body system, each of them does not cover as much surface area as the skin. For example, the heart is a muscular organ that pumps blood, the liver is involved in detoxification and metabolism, and the lungs are responsible for gas exchange. However, none of these organs can match the skin's extensive surface area or the functionality it provides as the body's first line of defense and a regulator of various physiological processes.

2. Who proposed the theory of inheritance of acquired characters?

- A. Darwin
- B. Lamarck**
- C. Weismann
- D. Wallace

The theory of inheritance of acquired characters was proposed by Lamarck, who suggested that organisms can pass on traits acquired during their lifetime to their offspring. This idea stems from the belief that an individual's behavior can result in physical changes, which could then be inherited by the next generation. For example, Lamarck famously used the example of giraffes stretching their necks to reach higher leaves; he argued that this effort led to longer necks in their descendants. Lamarck's views were a significant departure from those of his contemporaries and laid groundwork for future discussions about evolution and inheritance. His theory contrasts with later views that emphasized genetic inheritance as the primary mechanism of evolution, which were supported by the work of scientists like Weismann and Darwin, who provided alternative explanations grounded in natural selection and hereditary principles. By recognizing Lamarck's contribution, we can appreciate the evolution of biological thought regarding heredity and evolution.

3. Which types of organisms are known to produce carbohydrates, the most abundant biomolecules on Earth?

- A. Bacteria, fungi, and animals
- B. Bacteria, algae, and green plant cells**
- C. Algae, fungi, and animals
- D. Only plants and algae

The correct answer highlights the significance of bacteria, algae, and green plant cells in the production of carbohydrates, which are crucial biomolecules found throughout the biosphere. Bacteria, particularly cyanobacteria, are capable of photosynthesis, allowing them to convert light energy into chemical energy while synthesizing carbohydrates. Algae also play a vital role in carbon fixation through photosynthesis, contributing significantly to the global carbohydrate pool. Green plants, as the most recognized producers, utilize sunlight, carbon dioxide, and water to generate carbohydrates via photosynthesis. Together, these groups of organisms are essential for the process of generating organic matter and oxygen, sustaining the food webs of ecosystems. In contrast, animals primarily consume carbohydrates and do not produce them, making options that include animals less accurate. Fungi are decomposers and primarily break down organic matter; thus, they do not synthesize carbohydrates actively. Only plants and algae, while crucial, do not encompass the full scope of organisms involved in carbohydrate production, excluding the contributions of bacteria. Therefore, the inclusion of bacteria in option B supports a broader understanding of primary producers in the ecosystem.

4. Which macromolecule plays a crucial role in cell signaling and forms biological membranes?

- A. Proteins
- B. Carbohydrates
- C. Nucleic acids
- D. Lipids**

Lipids are integral to both cell signaling and the formation of biological membranes. They serve as the primary structural component of cell membranes, notably through phospholipids, which arrange themselves into a bilayer that provides a barrier between the inside of the cell and its surroundings. This configuration not only maintains cellular integrity but also facilitates selective permeability, allowing essential molecules to enter or exit the cell. In addition to structural roles, certain lipids function as signaling molecules. For instance, steroid hormones—derived from cholesterol—are key in regulating various physiological processes. Phospholipids can also release signaling molecules that partake in communication among cells. This interplay between structure and signaling highlights the vital contributions of lipids in both cellular architecture and functionality. While proteins are crucial for many biological processes and can serve in signaling roles, their primary function is not the structural integrity of membranes, which is largely dependent on lipids. Carbohydrates primarily serve as energy sources and structural components in cells rather than being directly involved in membrane formation or signaling in the same critical way. Nucleic acids, such as DNA and RNA, are essential for genetic information storage and expression but do not play a significant role in cell membrane structure or signaling. Thus, lipids are the mac

5. What type of symbiotic relationship benefits one organism while harming the other?

- A. Mutualism
- B. Commensalism
- C. Parasitism**
- D. Cooperation

In a parasitic relationship, one organism, the parasite, benefits at the expense of another organism, the host. The parasite derives nutrients and other benefits while harming the host, which may suffer from reduced health, reproductive ability, or even death as a consequence. This dynamic exemplifies a clear imbalance where the parasite's needs are fulfilled, often leading to detrimental effects on the host's survival or fitness. Parasitism is distinct from mutualism, where both organisms benefit, and commensalism, where one organism benefits while the other is neither helped nor harmed. Cooperation involves mutually beneficial interactions, further highlighting the unique nature of parasitism, which is fundamentally characterized by the cost imposed on the host.

6. Which method has been recently used to more accurately determine the age of fossils?

- A. Potassium-Argon Dating
- B. Electron Spin Resonance (ESR)**
- C. Carbon Dating
- D. Thermoluminescence Dating

Electron Spin Resonance (ESR) has become a prominent method in accurately determining the age of fossils, particularly those that are too old for traditional carbon dating. This technique measures the trapped electrons in materials, such as tooth enamel or sediments, that accumulate over time due to natural radioactive processes. As a result, ESR can provide age estimates for fossils that are tens of thousands to millions of years old. One of the significant advantages of ESR is that it does not require the sample to contain any carbon, which is especially useful for dating fossils that predate the carbon dating range. Additionally, ESR can be applied to a variety of materials and environmental contexts, making it a versatile tool in paleontology and archaeology. While other methods like Potassium-Argon Dating and Thermoluminescence Dating also serve important roles in dating geological and archaeological samples, ESR offers specific advantages in terms of its applicability to certain types of fossils and the age range that can be accurately measured.

7. What is the function of enzymes in biological reactions?

- A. To provide energy for reactions
- B. To act as catalysts and speed up reactions**
- C. To inhibit chemical reactions
- D. To create energy molecules

Enzymes play a critical role in biological reactions primarily by acting as catalysts. They facilitate and accelerate the rate of chemical reactions without being consumed in the process. Enzymes lower the activation energy required for a reaction to occur, thereby increasing the likelihood of the reaction happening. This ability to speed up reactions is essential for sustaining life, as many biological processes would occur at a rate too slow to support cellular functions without enzyme involvement. For instance, in metabolic pathways, enzymes ensure that the chemical reactions necessary for various physiological functions happen quickly and efficiently, contributing to the regulation and efficiency of biological systems. This catalytic action distinctively sets enzymes apart from mere energy providers or inhibitors, which do not function in the same manner.

8. In animals, where does gas exchange typically occur?

- A. Muscles
- B. Heart
- C. Lungs**
- D. Kidneys

Gas exchange in animals primarily occurs in the lungs. The lungs are specialized organs that allow for the exchange of oxygen and carbon dioxide between the air and the bloodstream. During inhalation, oxygen-rich air is drawn into the alveoli, which are tiny air sacs within the lungs. Here, oxygen diffuses across the alveolar membrane into the capillaries, where it binds to hemoglobin in red blood cells for transport to tissues throughout the body. Conversely, carbon dioxide, a waste product from metabolism, diffuses from the blood into the alveoli to be exhaled during breathing. This efficient process of gas exchange is crucial for maintaining the body's oxygen levels and removing carbon dioxide, thus playing a vital role in respiration and overall metabolic function. While muscles and the heart are involved in circulation and movement of blood, and kidneys are involved in waste filtration and fluid balance, they do not serve as the primary sites for gas exchange. The specialized structure and large surface area of the lungs make them uniquely suited for this essential process.

9. What is the primary function of the endoplasmic reticulum?

- A. Energy production
- B. Cell division
- C. Synthesis and transport of proteins and lipids**
- D. Storage of genetic material

The endoplasmic reticulum (ER) plays a crucial role in the synthesis and transport of proteins and lipids, making that function its primary purpose. The ER exists in two forms: rough and smooth. The rough endoplasmic reticulum is studded with ribosomes, which are sites for protein synthesis. Once proteins are synthesized, they are folded and modified in the rough ER before being packaged into vesicles for transport to other parts of the cell, such as the Golgi apparatus for further processing. The smooth endoplasmic reticulum, on the other hand, is involved in the synthesis of lipids and detoxification of certain chemicals. It also plays a role in storing calcium ions, which are important for various cellular functions. Thus, the ER can be seen as a critical hub for the production and trafficking of macromolecules needed for the cell's structure and function.

10. Name the protein that helps in the transport of oxygen in the blood.

- A. Albumin
- B. Myoglobin
- C. Hemoglobin**
- D. Globulin

Hemoglobin is the protein responsible for the transport of oxygen in the blood. It is found in red blood cells and consists of four polypeptide chains, each containing a heme group that can bind to oxygen. When blood passes through the lungs, hemoglobin binds to oxygen molecules, forming oxyhemoglobin. This highly efficient mechanism allows hemoglobin to pick up oxygen where it is abundant and release it where it is needed, such as in tissues where oxygen levels are lower. In addition to transporting oxygen, hemoglobin also plays a role in transporting carbon dioxide, a waste product of metabolism, from tissues back to the lungs. The ability to carry both oxygen and carbon dioxide is crucial for maintaining the body's pH balance and supporting cellular respiration. While albumin primarily functions as a carrier protein for various substances in the blood, myoglobin is more specialized for oxygen storage in muscle tissues rather than transport. Globulins are a group of proteins involved in immune functions and transport but do not specifically serve the primary role of oxygen transport that hemoglobin does. Thus, the unique structure and function of hemoglobin make it the key protein for oxygen transport in the blood.

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://neetbiology.examzify.com>

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

SAMPLE