

HISET SCIENCE PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://hisetscience.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. Which system is responsible for taking in oxygen and releasing carbon dioxide?**
 - A. Digestive System
 - B. Nervous System
 - C. Respiratory System
 - D. Circulatory System
- 2. In physics, what term refers to the capacity of a physical system to do work?**
 - A. Power
 - B. Work
 - C. Energy
 - D. Force
- 3. What are structures that produce secretions known as?**
 - A. Cells
 - B. Muscles
 - C. Tissues
 - D. Glands
- 4. Which component of blood is primarily involved in clotting?**
 - A. Leukocytes
 - B. Platelets
 - C. Erythrocytes
 - D. Plasma
- 5. What is the inhalation and exhalation of air commonly referred to as?**
 - A. Ventilation
 - B. Respiration
 - C. Circulation
 - D. Oxygenation

- 6. What is the name of the tube-shaped organs through which most nutrients and water are absorbed from food?**
- A. Stomach
 - B. Intestines
 - C. Esophagus
 - D. Páncreas
- 7. What is the primary function of phloem in plants?**
- A. Carries water and minerals from roots
 - B. Transports sugar and organic substances
 - C. Supports the stem
 - D. Generates new leaves
- 8. What term describes animals whose body temperature remains constant regardless of external temperatures?**
- A. Cold-blooded
 - B. Ectothermic
 - C. Warm-blooded
 - D. Endothermic
- 9. Which group includes invertebrates with soft bodies and bilateral symmetry, some of which are parasites?**
- A. Crustaceans
 - B. Worms
 - C. Mollusks
 - D. Flatworms
- 10. What type of muscle can be classified as involuntary?**
- A. Skeletal muscle
 - B. Smooth muscle
 - C. Cardiac muscle
 - D. Both Smooth and Cardiac muscle

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which system is responsible for taking in oxygen and releasing carbon dioxide?

- A. Digestive System
- B. Nervous System
- C. Respiratory System**
- D. Circulatory System

The respiratory system is the body's primary mechanism for gas exchange, which is the process of taking in oxygen and expelling carbon dioxide. This system includes structures such as the lungs, trachea, and bronchi that facilitate airflow. When you breathe in, oxygen from the air enters the lungs and is transferred to the bloodstream, where it is transported to cells throughout the body. Conversely, carbon dioxide, which is a waste product of cellular metabolism, is carried back to the lungs by the blood and expelled from the body when you exhale. The design of the respiratory system, with its vast surface area and delicate alveoli, is specifically adapted for this exchange of gases, making it essential for maintaining the body's overall respiratory function and ensuring that cells receive the oxygen they need while removing carbon dioxide.

2. In physics, what term refers to the capacity of a physical system to do work?

- A. Power
- B. Work
- C. Energy**
- D. Force

The term that refers to the capacity of a physical system to do work is energy. In physics, energy is defined as the ability to perform work, which encompasses a variety of forms, including kinetic energy, potential energy, thermal energy, and many others. When a system has energy, it can transfer that energy to another system or perform a task, such as moving an object against a force or creating heat. Power, on the other hand, measures the rate at which work is done or energy is transferred over time, but it is not a measure of capacity itself. Work is defined as the process of energy transfer that occurs when an object is moved over a distance by an external force, but it does not denote the system's capacity to do so. Force is an interaction that causes an object to accelerate, but it does not encompass the broader concept of a system's ability to do work, which is fundamentally described by energy. Thus, energy succinctly captures this capacity and its importance in various physical processes.

3. What are structures that produce secretions known as?

- A. Cells
- B. Muscles
- C. Tissues
- D. Glands**

Glands are specialized structures in the body that produce and release secretions. These secretions can include hormones, enzymes, or other fluids that play essential roles in various physiological processes. Glands can be classified into different types, such as exocrine glands, which secrete substances onto epithelial surfaces through ducts (like sweat glands and salivary glands), and endocrine glands, which release hormones directly into the bloodstream (like the thyroid gland and adrenal glands). Understanding the role of glands is crucial in comprehending how different systems in the body function, as their secretions often regulate metabolism, growth, and other vital processes. Other choices, such as cells, muscles, and tissues, refer to broader biological components and do not specifically denote structures designated for secretion, making them less accurate in this context.

4. Which component of blood is primarily involved in clotting?

- A. Leukocytes
- B. Platelets**
- C. Erythrocytes
- D. Plasma

Platelets, also known as thrombocytes, are the primary component of blood involved in the clotting process. When a blood vessel is injured, platelets rapidly gather at the site of damage, adhering to the exposed tissue. They start to clump together and form a temporary "platelet plug," which is crucial for stopping bleeding. Additionally, platelets release various chemicals that promote further clotting by signaling to other platelets, enhancing the clotting response, and helping to activate the coagulation cascade, which ultimately leads to the formation of a stable blood clot. While leukocytes (white blood cells) are essential for the immune response, erythrocytes (red blood cells) are primarily responsible for transporting oxygen, and plasma serves as the liquid medium for carrying various components of blood, including nutrients, hormones, and waste products. Thus, in the context of clotting, platelets play the central role in initiating and facilitating the process.

5. What is the inhalation and exhalation of air commonly referred to as?

- A. Ventilation
- B. Respiration**
- C. Circulation
- D. Oxygenation

The inhalation and exhalation of air is commonly referred to as ventilation. Ventilation specifically refers to the physical process of moving air in and out of the lungs, allowing for gas exchange. This process is crucial as it facilitates the intake of oxygen and the removal of carbon dioxide from the body. Respiration, on the other hand, encompasses a broader physiological process that includes not only the mechanical act of breathing (ventilation) but also the biochemical processes that occur in cells for producing energy from oxygen. It involves the exchange of gases at the alveoli in the lungs and at the cellular level in the tissues. Therefore, while respiration involves ventilation, the term used to describe the inhalation and exhalation itself is ventilation, making it the most accurate choice in this context.

6. What is the name of the tube-shaped organs through which most nutrients and water are absorbed from food?

- A. Stomach
- B. Intestines**
- C. Esophagus
- D. Páncreas

The correct answer identifies the intestines as the tube-shaped organs primarily responsible for the absorption of most nutrients and water from food. The intestines consist of two main sections: the small intestine and the large intestine. The small intestine is particularly vital for nutrient absorption, as it has many folds and finger-like projections called villi that significantly increase its surface area, enabling efficient nutrient uptake. Water absorption mainly occurs in the large intestine, which further processes waste before elimination. Therefore, the intestines play a crucial role in digestion and nutrient absorption, making this the accurate response to the question.

7. What is the primary function of phloem in plants?

- A. Carries water and minerals from roots
- B. Transports sugar and organic substances**
- C. Supports the stem
- D. Generates new leaves

The primary function of phloem in plants is to transport sugar and organic substances. Phloem is a type of vascular tissue that plays a crucial role in the process of photosynthesis, where plants produce glucose (a type of sugar) in their leaves. This sugar is then moved through the phloem to various parts of the plant, including roots, stems, and fruits, to provide energy and support growth. The ability of phloem to distribute these essential nutrients is vital for the plant's overall health and development. Other options, while related to plant functions, do not accurately describe the role of phloem. For instance, the movement of water and minerals from the roots is primarily handled by xylem, another type of vascular tissue. Similarly, support for the stem is primarily provided by structural tissues, and the generation of new leaves involves growth processes rather than a direct transport function of phloem. This understanding highlights the specific and essential role of phloem in the plant's nutrient transport system.

8. What term describes animals whose body temperature remains constant regardless of external temperatures?

- A. Cold-blooded
- B. Ectothermic
- C. Warm-blooded**
- D. Endothermic

The term that describes animals whose body temperature remains constant regardless of external temperatures is "warm-blooded," which refers to those animals that can maintain a stable internal body temperature through various physiological mechanisms. Warm-blooded animals, or endotherms, include mammals and birds, which have adaptations such as insulation (like fur or feathers) and metabolic processes that generate heat to keep their body temperatures within a narrow, optimal range regardless of environmental conditions. This ability allows them to be active in a wider range of temperatures and occupy various ecological niches. In contrast, other terms represent different thermoregulation strategies. Cold-blooded animals, also known as ectothermic, rely on external environmental temperatures to regulate their body heat, leading to fluctuating internal temperatures. Therefore, the distinction between warm-blooded and cold-blooded illustrates a fundamental difference in how these groups of animals interact with their environments.

9. Which group includes invertebrates with soft bodies and bilateral symmetry, some of which are parasites?

- A. Crustaceans
- B. Worms**
- C. Mollusks
- D. Flatworms

The group that includes invertebrates with soft bodies and bilateral symmetry, some of which are parasites, is worms. This classification encompasses a diverse array of organisms, including segmented worms and roundworms, many of which exhibit bilateral symmetry and have soft, elongated bodies. Worms play various roles in ecosystems and can be found in numerous habitats. In terms of parasitism, certain types of worms, such as nematodes and some flatworms, have adopted parasitic lifestyles, feeding off hosts and affecting their biology. This characteristic of having parasitic species is significant for understanding ecological relationships, human health, and agricultural impacts. Other groups like crustaceans and mollusks don't fit this description as effectively. Crustaceans have hard exoskeletons and generally display different body plans and symmetry. Mollusks do have soft bodies, but they mostly do not exhibit parasitic behavior. Flatworms are actually a subset of worms, specifically known for their flat bodies and can include parasites, which is why they are a related concept but do not encapsulate all types of worms in general.

10. What type of muscle can be classified as involuntary?

- A. Skeletal muscle
- B. Smooth muscle
- C. Cardiac muscle
- D. Both Smooth and Cardiac muscle**

Involuntary muscle refers to muscle that operates without conscious control. Smooth muscle is found in the walls of hollow organs such as the intestines and blood vessels, and it performs functions like moving food through the digestive tract and regulating blood flow. Cardiac muscle, found only in the heart, is also involuntary and responsible for pumping blood throughout the body. Both types of muscle are controlled by the autonomic nervous system, which regulates bodily functions that occur without conscious effort. This means that both smooth and cardiac muscles function automatically to respond to physiological signals. Skeletal muscle, on the other hand, is under voluntary control and is involved in movements that we consciously regulate, such as walking or picking up objects. This distinction is crucial in understanding how different types of muscle tissue operate within the body. Thus, the correct answer encompasses both smooth and cardiac muscle as involuntary types, reflecting their automatic functioning.

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://hisetscience.examzify.com>

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

SAMPLE