TEAS 7 Scientific Reasoning Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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

1. Tachycardia is defined as:

A. Fast heart rate

B. Slow heart rate

C. Irregular heartbeat

D. No heartbeat

2. Which of the following best describes an observation?

A. It is a statement based on data gathered during experimentation.

B. It is a guess about the outcome.

C. It is a formal procedure.

D. It is an instrument.

3. Which sequence correctly represents the cellular hierarchy from smallest to largest unit?

A. tissue, cell, organ, organ system, organism

B. cell, tissue, organ, organ system, organism

C. cell, organ, tissue, organ system, organism

D. organism, organ system, organ, tissue, cell

4. Which organ reabsorbs water to form solid waste?

A. Stomach

B. Small Intestine

C. Large Intestine

D. Esophagus

5. The spleen is the largest organ of the:

A. Lymphatic system

B. Nervous system

C. Endocrine system

D. Digestive system

6. If a sample has a mass number of 23 and an atomic number of 11, how many neutrons does it have?

A. 12

B. 11

C. 34

D. 22

7. Parathyroid glands are typically located on the posterior aspect of the thyroid gland.

A. Anterior surface

B. Posterior aspect

C. Inside the thyroid

D. In the carotid sheath

8. Which unit is used to express the volume of a liquid?

A. Kilogram

B. Liter

C. Meter

D. Mole

9. Which prefix represents 1,000 in the metric system?

A. Deka

B. Mega

C. Giga

D. Kilo

10. Afferent lymphatic vessels carry lymph

A. Away from node

B. Circulate blood through the bloodstream

C. Produce lymph

D. Toward lymph node

Answers

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

Explanations

1. Tachycardia is defined as:

A. Fast heart rate

B. Slow heart rate

C. Irregular heartbeat

D. No heartbeat

Tachycardia means the heart is beating faster than normal at rest. In adults, a normal resting rate is about 60–100 beats per minute, so a rate above that is considered tachycardia. This term describes speed, not rhythm or presence of a beat. So the best description is a fast heart rate. The other ideas refer to a slow heart rate (bradycardia), an irregular rhythm (arrhythmia), or no heartbeat at all (asystole).

2. Which of the following best describes an observation?

A. It is a statement based on data gathered during experimentation.

B. It is a guess about the outcome.

C. It is a formal procedure.

D. It is an instrument.

An observation is a factual description of what happens in an experiment, based on data collected through measurements or careful noticing. It records what is seen, heard, or measured, without trying to explain why it happened. That's why describing an observation as a statement based on data gathered during experimentation is the best fit. It differs from a hypothesis, which is a guess about the outcome; from a procedure, which is the set of steps to follow; and from an instrument, which is a tool used to collect data.

3. Which sequence correctly represents the cellular hierarchy from smallest to largest unit?

A. tissue, cell, organ, organ system, organism

B. cell, tissue, organ, organ system, organism

C. cell, organ, tissue, organ system, organism

D. organism, organ system, organ, tissue, cell

Understanding the order of biological organization from smallest to largest is what this question is about. The smallest unit that carries out life functions is the cell. Similar cells group together to form tissues, which provide a specific function. Tissues then come together to form organs, each with a specialized role in the body. Organs collaborate within organ systems to perform broader physiological tasks, and all of these systems together make up the organism. So the correct progression is cell → tissue → organ → organ system → organism. The other sequences place levels out of order. Starting with tissue assumes cells aren't the smallest unit; placing organ before tissue ignores that organs are built from tissues; starting with the organism places the whole being before its parts.

4. Which organ reabsorbs water to form solid waste?

A. Stomach

B. Small Intestine

C. Large Intestine

D. Esophagus

Water reabsorption to form solid waste happens in the large intestine. After most nutrients and much of the water are absorbed earlier in the digestive tract, the remaining material moves into the large intestine where water and electrolytes are reabsorbed, primarily by osmosis. This removal of water concentrates the waste into stool. The large intestine's job is to turn this liquid mixture into a semi-solid form that can be excreted. In contrast, the esophagus and stomach mainly handle transport and initial digestion, with only minimal water reabsorption, while the small intestine absorbs most nutrients and a large portion of water but does not form solid waste.

5. The spleen is the largest organ of the:

A. Lymphatic system

B. Nervous system

C. Endocrine system

D. Digestive system

In the lymphatic system, the spleen is the largest organ because it contains a large amount of lymphoid tissue and serves major immune functions. The spleen houses white pulp, rich in lymphocytes, which detect and respond to blood-borne pathogens, and red pulp, where old or damaged red blood cells are filtered and macrophages remove them. This combination of extensive immune tissue and blood filtration makes the spleen the largest organ associated with the lymphatic system, unlike organs in the nervous, endocrine, or digestive systems, which have different primary roles.

6. If a sample has a mass number of 23 and an atomic number of 11, how many neutrons does it have?

A. 12

B. 11

C. 34

D. 22

Mass number is the total number of protons and neutrons in the nucleus, while atomic number is the number of protons. To find neutrons, subtract the atomic number from the mass number: 23 minus 11 equals 12. So there are 12 neutrons. For context, an atom with 11 protons is sodium, and its common isotope has 11 protons and 12 neutrons, giving a mass number of 23. The other numbers would not keep the same proton count and mass number together.

7. Parathyroid glands are typically located on the posterior aspect of the thyroid gland.

A. Anterior surface

B. Posterior aspect

C. Inside the thyroid

D. In the carotid sheath

Parathyroid glands are normally tucked behind the thyroid, sitting on its posterior surface just under the thyroid capsule. This posterior location is where the glands develop and migrate to, and two pairs (superior and inferior) end up there in most people. Being on the back of the thyroid keeps them separate from the thyroid tissue itself, yet close enough to share a common blood supply from the inferior thyroid arteries. The other locations described—anterior surface, inside the thyroid, or in the carotid sheath—don't reflect where these glands are typically found; the anterior surface is in front of the thyroid, intrathyroidal tissue would mean the glands are embedded within the thyroid tissue, and the carotid sheath lies lateral to the thyroid and contains vessels and nerves, not the parathyroids.

8. Which unit is used to express the volume of a liquid?

A. Kilogram

B. Liter

C. Meter

D. Mole

Volume is the amount of space a substance takes up, and for liquids the standard unit used is the liter. A liter is a unit of volume defined as the space occupied by a cube 10 cm on each side, which equals 1000 cubic centimeters, making it practical for measuring common liquid quantities like water, milk, or juice. The other terms measure different properties: kilograms (or grams) quantify mass, meters measure length, and moles count a specific amount of substance. For smaller liquid amounts, milliliters are used (1 L = 1000 mL), while larger volumes might use liters or cubic meters in different contexts.

9. Which prefix represents 1,000 in the metric system?

A. Deka

B. Mega

C. Giga

D. Kilo

In the metric system, prefixes show powers of ten attached to base units. The prefix for 1,000 is kilo-, which equals 10^3. This means a kilometer is 1,000 meters and a kilogram is 1,000 grams. Other prefixes in this set correspond to different magnitudes: deka- is 10, mega- is 10^6, and giga- is 10^9. So kilo- is the one that represents 1,000.

10. Afferent lymphatic vessels carry lymph

A. Away from node

B. Circulate blood through the bloodstream

C. Produce lymph

D. Toward lymph node

Afferent lymphatic vessels carry lymph toward lymph nodes. Lymph is interstitial fluid that has entered the lymphatic capillaries and is then routed through progressively larger lymphatic vessels to a lymph node for filtration and immune surveillance. The term afferent means toward, so these vessels bring lymph into the lymph node, where immune cells can inspect it. After filtration, lymph leaves the node through efferent vessels, continuing its journey back toward the bloodstream. This system keeps tissue fluid balanced and helps defend against pathogens.

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://teas7scientificreasoning.examzify.com

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