

IGCSE Computer Science Practice Test (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 is the primary function of a mouse in a computer system?**
 - A. To serve as a storage device**
 - B. To interpret user actions**
 - C. To display graphical user interfaces**
 - D. To connect different peripherals**

- 2. What is shareware?**
 - A. Software available for free indefinitely**
 - B. Software that offers a trial version before purchase**
 - C. Software that cannot be purchased**
 - D. Software provided without copyright**

- 3. What is a notable disadvantage of barcode readers?**
 - A. Costly maintenance**
 - B. Not durable**
 - C. Limited scanning distance**
 - D. Require constant power supply**

- 4. What role does a thermostat play in a heating system?**
 - A. Activates street lights at night**
 - B. Detects temperature to regulate central heating**
 - C. Measures the strength of magnetic fields**
 - D. Controls the humidity in the air**

- 5. What is spyware primarily designed to do?**
 - A. Encrypt data during transmission**
 - B. Monitor user activity and relay information**
 - C. Strengthen network security**
 - D. Reduce computer processing time**

- 6. What is the main purpose of a 3D cutter application?**
 - A. To create parts of cars, aircraft, or buildings**
 - B. To design graphics for video games**
 - C. To edit photos and images**
 - D. To develop software applications**

- 7. Which sensor measures the strength and direction of a magnetic field?**
- A. Humidity sensor**
 - B. Pressure sensor**
 - C. Magnetic field sensor**
 - D. Temperature sensor**
- 8. What does a pressure sensor measure?**
- A. Movement of objects**
 - B. Liquid or gas pressure**
 - C. Changes in temperature**
 - D. Levels of moisture in soil**
- 9. Which advantage of 3D printers allows for rapid transitions from design to prototype?**
- A. Reduced production speed**
 - B. Fast production**
 - C. Expensive materials**
 - D. Limited application scope**
- 10. Which sensor is integral to the functioning of automatic street lights?**
- A. Motion sensor**
 - B. Light sensor**
 - C. Pressure sensor**
 - D. Temperature sensor**

Answers

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

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Explanations

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1. What is the primary function of a mouse in a computer system?

- A. To serve as a storage device**
- B. To interpret user actions**
- C. To display graphical user interfaces**
- D. To connect different peripherals**

The primary function of a mouse in a computer system is to interpret user actions. This device acts as an input tool, allowing users to interact with the computer's graphical user interface (GUI) by translating physical movements into actionable commands. When a user moves the mouse, the device translates those movements into cursor movements on the screen. Clicking buttons or scrolling with the mouse sends specific signals to the computer, enabling users to perform tasks such as selecting, dragging, and dropping items. This function is essential for navigating the interface, allows for direct manipulation of objects on the screen, and enhances user experience by making interactions more intuitive and responsive. Other devices, such as keyboards, also interpret user actions, but the mouse provides a distinct, visual method of action that dramatically enhances user interactivity. In contrast, a storage device saves data, displaying graphical user interfaces is a function of the monitor, and connecting peripherals involves ports and cables rather than the mouse's functionality directly.

2. What is shareware?

- A. Software available for free indefinitely**
- B. Software that offers a trial version before purchase**
- C. Software that cannot be purchased**
- D. Software provided without copyright**

Shareware refers to a distribution method for software that allows users to try a limited version of a program before making a purchasing decision. Typically, shareware is provided with some restrictions, such as feature limitations or a trial period. This model encourages users to evaluate the software's capabilities, and if they find it valuable, they can then choose to purchase the full version, which may include additional features or no time limitations. This approach benefits both developers and users, as it allows developers to showcase their products and potential customers to assess the software's fit for their needs. The trial period or limited features create a sense of urgency and encourage the decision to buy, while also helping to protect intellectual property since the software is not freely available in its entirety from the start.

3. What is a notable disadvantage of barcode readers?

- A. Costly maintenance
- B. Not durable**
- C. Limited scanning distance
- D. Require constant power supply

One notable disadvantage of barcode readers is that they are not durable. Barcode readers, particularly handheld models, can be sensitive to physical damage, such as drops or exposure to liquids. This sensitivity can lead to malfunctions if the device is not handled carefully. In environments where durability is crucial, such as in warehouses or retail settings with high levels of activity, the lack of ruggedness can be a significant drawback. On the other hand, while some options involve valid considerations, they may not hold the same weight as the durability issue. Maintenance costs can vary depending on the model, materials, and usage context; some readers can be relatively inexpensive to maintain. The scanning distance typically meets the needs of most applications; therefore, it is not a primary disadvantage. Furthermore, while many barcode readers do require a power supply, many models are designed with energy efficiency in mind and can operate for extended periods on battery power, minimizing concerns about constant power supply needs.

4. What role does a thermostat play in a heating system?

- A. Activates street lights at night
- B. Detects temperature to regulate central heating**
- C. Measures the strength of magnetic fields
- D. Controls the humidity in the air

A thermostat is a crucial component in a heating system, primarily functioning to detect temperature and regulate the central heating accordingly. It monitors the current temperature of the environment and compares it to a predetermined setpoint, or the desired temperature set by the user. When the temperature deviates from the setpoint, the thermostat activates or deactivates the heating system to maintain a comfortable and stable indoor climate. This regulation ensures energy efficiency, as the system only operates when necessary to reach or maintain the desired temperature, thereby preventing unnecessary heating and reducing energy consumption. In this context, the other options do not align with the specific function of a thermostat. Options related to street lights, magnetic field measurements, and humidity control pertain to different systems or devices entirely, demonstrating that the thermostat's role is uniquely centered on temperature regulation within heating systems.

5. What is spyware primarily designed to do?

- A. Encrypt data during transmission
- B. Monitor user activity and relay information**
- C. Strengthen network security
- D. Reduce computer processing time

Spyware is primarily designed to monitor user activity and relay information back to its creator. This type of malicious software operates covertly, often without the user's consent, and can track various activities such as browsing habits, login credentials, keystrokes, and other personal information. The information collected by spyware can then be used for various malicious purposes, such as identity theft, unauthorized data access, or targeted advertising. In contrast, options related to encrypting data, strengthening network security, or reducing computer processing time do not align with the primary function of spyware. Encrypting data during transmission focuses on securing data from unauthorized access, while strengthening network security aims to protect systems from threats. Reducing processing time generally pertains to improving performance rather than monitoring or data collection. Each of these actions serves a different purpose than what spyware is designed to do.

6. What is the main purpose of a 3D cutter application?

- A. To create parts of cars, aircraft, or buildings**
- B. To design graphics for video games
- C. To edit photos and images
- D. To develop software applications

The main purpose of a 3D cutter application is to create parts of cars, aircraft, or buildings. Such applications are utilized in various manufacturing and engineering processes where materials are cut or shaped into specific designs using 3D modeling techniques. This allows for precision in creating components that fit together in complex systems, ensuring that they meet both functional and aesthetic requirements. While designing graphics for video games, editing photos and images, and developing software applications are also important aspects of computer science and design, they do not specifically relate to the cutting and shaping of physical materials as a primary function. 3D cutter applications focus on the practical application of technology in manufacturing and construction, emphasizing the creation and modification of tangible objects based on digital representations.

7. Which sensor measures the strength and direction of a magnetic field?

- A. Humidity sensor**
- B. Pressure sensor**
- C. Magnetic field sensor**
- D. Temperature sensor**

A magnetic field sensor is specifically designed to measure the strength and direction of a magnetic field. This type of sensor uses principles of magnetism to detect the presence and intensity of magnetic fields, which can be crucial for various applications such as navigation, electronic compass systems, and industrial automation. Other sensors mentioned have distinct purposes: a humidity sensor measures the moisture level in the air, a pressure sensor monitors atmospheric or fluid pressure, and a temperature sensor detects temperature changes. Each of these sensors operates based on different physical principles and is used for specific environmental monitoring or control tasks, making them unsuitable for measuring magnetic fields.

8. What does a pressure sensor measure?

- A. Movement of objects**
- B. Liquid or gas pressure**
- C. Changes in temperature**
- D. Levels of moisture in soil**

A pressure sensor specifically measures the pressure of liquids or gases, which makes it essential in a variety of applications such as weather monitoring, industrial processes, and automotive systems. The functionality of a pressure sensor is based on the detection of force exerted by a fluid (either liquid or gas) against a given area. When pressure is applied, the sensor translates this physical change into an electrical signal, which can then be processed or displayed. In contexts such as environmental monitoring, pressure sensors can be used for detecting atmospheric pressure changes, while in industrial settings, they may monitor pressures in pipes or tanks, ensuring systems operate within safe and optimal ranges. This distinct capability is what clearly aligns with the purpose of a pressure sensor, distinguishing it from other choices such as movement detection, temperature changes, or moisture levels, which are measured by different types of sensors specifically designed for those functions.

9. Which advantage of 3D printers allows for rapid transitions from design to prototype?

- A. Reduced production speed**
- B. Fast production**
- C. Expensive materials**
- D. Limited application scope**

The advantage of 3D printers that allows for rapid transitions from design to prototype is primarily due to fast production. This technology enables designers and engineers to create prototypes quickly and efficiently. 3D printing works by layering materials based on digital designs, which significantly shortens the time required to produce tangible models compared to traditional manufacturing methods that may involve lengthy setup processes, tooling, and multiple production steps. With traditional methods, producing a prototype can take days or even weeks, whereas 3D printing can often produce a functional prototype in a matter of hours. This speed allows for quick iterations and testing of designs, facilitating a more agile development process. As a result, teams can refine their products based on feedback much faster, enhancing overall innovation and reducing time to market. In contrast, reduced production speed, expensive materials, and limited application scope do not contribute positively to the transition from design to prototype; instead, they either slow down the process, increase costs, or constrain the versatility of 3D printing technology in practical applications.

10. Which sensor is integral to the functioning of automatic street lights?

- A. Motion sensor**
- B. Light sensor**
- C. Pressure sensor**
- D. Temperature sensor**

The light sensor is essential for the operation of automatic street lights because it detects the ambient light conditions in the environment. When the light level drops below a certain threshold, indicating that it is becoming dark, the light sensor triggers the street lights to turn on. Conversely, when it detects sufficient light, such as during the day, it signals the lights to switch off. This functionality allows street lights to operate efficiently, providing illumination only when needed and thereby conserving energy. In contrast, other sensors such as motion sensors might be useful for specific lighting applications, like turning on lights when someone approaches but are not primarily responsible for the automatic day/night cycle control. Pressure sensors typically measure applied force and are not relevant to lighting control. Temperature sensors monitor ambient temperature but have no impact on the illumination needs of outdoor spaces.

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://igcsecompsci.examzify.com>

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

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