

THE GUIDE FOR HELPING STUDENTS

Prepare for the CompTIA ITF+ (FC0-U61) Exam



TestOut



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IT FUNDAMENTALS PRO



CompTIA ITF+ Exam Overview

THE PURPOSE OF THE COMPTIA ITF+ EXAM

The CompTIA ITF+ exam is designed to accomplish the following:

- Help individuals determine whether a career in information technology (IT) is right for them.
- Help people develop a broader understanding of IT.
- Help high school and middle school students establish a solid framework for a more comprehensive IT education, and/or improve their overall familiarity with IT concepts and tools.

COMPTIA ITF+ EXAM SPECIFICATIONS

Number of Questions

Exam candidates will see between 70 to 75 questions on the ITF+ exam.

Time Limit

The ITF+ exam is a timed exam. Exam candidates have 60 minutes to complete the exam. The exam cannot be paused.

Question Types

The ITF+ exam features only multiple-choice questions. Most questions have a single correct answer, but there are some questions that ask students to select multiple correct answers.

Passing Score

The range of possible ITF+ exam scores is between 100 to 900. A score of 650 or higher is required to pass the exam.

ITF+ Scoring System

CompTIA employs a scaled/transformed score for the ITF+ exam. The number of questions that exam candidates answer correctly is factored into a scaled score; CompTIA uses proprietary metric to calculate final scores. In addition, CompTIA inserts experimental questions in each exam session. These questions are not scored, but exam candidates are not told which questions are experimental questions. This is the main reason why the total number of questions present during the exam varies. Because of these two factors, it is difficult to know exactly how many questions must be answered correctly to achieve a passing score.



TIME COMMITMENT REQUIRED FOR THE COMPTIA ITF+ EXAM

The CompTIA IT Fundamentals+ exam is a rigorous exam, especially for students who are new to IT. The ITF+ exam covers a variety of IT topics, such as networking, programming, databases, cybersecurity, and computer hardware and software. Because of this large pool of topics, there can be thousands of test questions written for the exam. CompTIA also periodically retires some questions and adds new ones. Because of the breadth of topics and the depth of understanding students need to achieve, preparing for the exam requires a significant time commitment from instructors and students. Adequately preparing new students typically requires several months of learning and test preparation. Simply memorizing TestOut ITF+ practice questions will not be enough for students to successfully pass the ITF+ exam.

UNDERSTANDING COMPTIA ITF+ QUESTIONS

The ITF+ exam requires in-depth knowledge of introductory IT topics. It is critical for students to understand that the ITF+ exam does not ask many high-level, conceptual questions, such as *What does IoT stand for?* Or *What are the main advantages of cloud computing?* Most of the questions that students will encounter require much deeper understanding. For many test items, students will need to analyze a scenario to answer the question correctly. Some questions will require students to perform a task such as a mathematical calculation. And some test items are challenging because they are somewhat ambiguous and confusing. Here are some examples:

Example 1 (Scenario-based Question)

In response to a user's input, a web application needs to make changes to the contents of a table in a database. Which general programming language do you use to accomplish the task?

- A. DML (Data Manipulation Language) - Correct answer
- B. DDL (Data Definition Language)
- C. DQL (Data Query Language)
- D. DCL (Data Control Language)

Explanation: To answer this question correctly, in addition to understanding what different SQL language categories are (DML, DDL, DQL, DCL), the student must know 1) common SQL actions associated with DML, 2) what a web application is, and 3) what a user's input means in the context of this question (updating a password, deleting a phone number, etc., using SQL).



Example 2 (Scenario-based Question)

Sam works from home. His wireless network generated poor signal quality. The signal improved when an old cordless phone stopped working. What problem did the cordless phone cause when it was active?

- A. Intrusion
- B. Network overlap
- C. Attenuation
- D. Interference - Correct answer

Explanation: The question does not simply ask what interference is. To answer this question correctly, the student needs to know 1) how a cordless phone could affect the quality of wireless signal, and 2) what the phenomenon is called.

Example 3 (Skill Question)

Convert the decimal number 40 into binary notation.

- A. 101011
- B. 1011111
- C. 1010100
- D. 101000 - Correct answer


Explanation: To answer this question correctly, the student needs to be proficient at converting a decimal to a binary number. Without adequate practice, the student could make a calculation error.

Example 4 (Ambiguous Question)

A company has two offices in the same town, with 100 employees in each building. Which type of network does it need to connect all its employees, LAN (Local Area Network) or WAN (Wide Area Network)?

- A. WAN because there are more than 50 employees.
- B. WAN because there are multiple locations. - Correct answer
- C. LAN because there are only two offices.
- D. LAN because there are less than 500 employees.

Explanation: This question can be seen as ambiguous or confusing because it does not give information about how far apart the buildings are. If the buildings are close together, a LAN is possible; if they are miles apart, then a WAN provider is necessary.



Again, it is important for students to understand that the ITF+ exam does not ask many easy, high-level conceptual questions. Students must have a solid and deep understanding of the test material. Superficial knowledge will not be enough to be successfully pass the exam. Therefore, we discourage students from memorizing answers to our practice questions. Students must be able to explain why a certain answer is the correct answer. If a student does not have a strong understanding of the material, then answering scenario-based, skill-based, and ambiguous questions will be very difficult.

How to Use TestOut ITF Pro to Prepare for the ITF+ Exam

The school year should be broken into two parts:

- Study period (most of the school year)
- Test preparation (4 to 8 weeks)

TIPS FOR STUDY PERIOD

- While ITF+ can be a difficult exam for some, we have seen many students from 9th grade and beyond excel in the class and pass this exam. TestOut offers a large variety of demonstrations and labs, which are extremely useful for obtaining a deeper understanding of the material. However, they may not be necessary to pass the ITF+ exam. If the curriculum's study time is limited, you may want to focus on the resources that are directly associated with the ITF+ exam (the video lessons and fact sheets). Technology demos and labs are very useful and make student learning more engaging, but they do not directly prepare students for the ITF+ exam.
- You may want to use the following instructor resources to create your curriculum:
 - *The List of TestOut ITF Course Resources Specifically for the ITF+ (FC0-U61) Exam*
 - This list shows the TestOut ITF course resources that are specifically developed for the ITF+ (FC0-U61) exam. As you create a curriculum, be sure to include these learning resources.
 - *ITF+ (FC0-U61) Exam Objectives and TestOut ITF Course Resource Mapping*
 - This document maps each ITF+ exam objective with TestOut ITF course resource(s). This is a quick reference guide to determine which specific ITF+ exam topic is covered in which specific TestOut learning resource(s).
- Convey to the students how important it is to pay attention to the details and really learn the material. Remember that most of the exam questions require students to know information in detail.
- Allow several months in the study period.

TIPS FOR TEST PREPARATION

- Once the study period is over, it is time for test preparation. The students must understand that they are entering a new phase of the class.
- This phase is typically 4 to 8 weeks. A student should spend about 5-10 hours a week — 40 hours total —



on test preparation. Some students might need less time, and others may need more. This is a general guideline.

- Study groups and group testing are very useful.
 - Study group: students form a group to work on TestOut practice exams.
 - Group testing: An instructor goes through TestOut practice exams with his or her class. Use a projector so students can work together.

- Students should practice testing in class and at home.

- Use the 20-question domain practice exams first.
 - Start with the domain with the largest percentage of questions.

Infrastructure

22 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.2

Security

20 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.6

Applications and Software

18 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.3

IT Concepts and Terminology

17 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.1

Software Development

12 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.4

Database Fundamentals

11 percent of ITF+ exam questions come from this domain. TestOut ITF Pro resource index: B.2.5

- The goal is to score 85 percent or higher on each domain exam three times in row.
- As students finish each domain exam practice session:
 - Use the exam report to go over the questions they missed and the questions they got right by guessing the answer.
 - Use the explanations to learn more about why they struggled with those questions.
 - Use the reference link to review or study associated material.
 - Make sure that students are not just memorizing the questions and answers.



- Once students are scoring 85 or higher on all of the 20-question domain practice exams, and have done so three times in a row, it is time to move on to the full practice test.
 - The full practice test delivers 75 questions from all exam domains, just like the real ITF+ exam (questions are randomly pulled from the question bank). TestOut ITF Pro resource index for the ITF+ full practice test is B.4.
 - The goal is to score 85 percent or higher on each domain exam three times in row.
 - As students finish each full practice exam session:
 - Use the exam report to go over the questions they missed and the questions they got right by guessing the answer.
 - Use the explanations to learn more about why they struggled with those questions.
 - Use the reference link to review or study associated material.
 - Make sure that students are not just memorizing the questions and answers.
- The ITF+ exam allows you to flag or mark questions and save them for later. It is important to practice flagging questions during practice tests. Because of the time limit, students should spend time first on questions that they can comfortably answer. Then they should work on the questions that they struggled with. The TestOut 20-question domain review quizzes (B.2) allow students to practice this test-taking skill.

ADDITIONAL PREPARATION FOR SKILL/TASK QUESTIONS

Some questions on the ITF+ exam require the exam candidate to perform a skill or task to choose the correct answer. Make sure that students practice the following skills before taking the exam.

- Convert a binary number into the decimal equivalent.
 - TestOut Section 2.3.1 and 2.3.2
- Convert a decimal number into the binary equivalent.
 - TestOut Section 2.3.1 and 2.3.2
- Convert a hexadecimal number into the binary equivalent.
 - TestOut Section 2.3.1 and 2.3.2
- How to convert computer storage units (GB to TB, KB to MB, etc.)
 - TestOut Section 2.3.3 and 2.3.4
- Read pseudocode and determine what the code is meant to do.
 - TestOut Section 8.2.1 and 8.2.6
- Read JavaScript code and determine what the code is meant to do.
 - TestOut Section 8.3.6



Students might also use the following sites to practice their skills:

- Binary Conversion Calculator
 - <https://www.rapidtables.com/convert/number/decimal-to-binary.html>
- Computer Storage Unit Conversion Calculator
 - <https://www.calculatorsoup.com/calculators/conversions/computerstorage.php>



Test Day Instruction and Strategies

When students register for the ITF+ exam, they are asked to choose between home delivery and test center delivery.

HOME EXAM DELIVERY

- If a student takes their exam from home, they will want to watch this video to prepare.
 - <https://home.pearsonvue.com/comptia/onvue>
- If student is 17 years of age or younger, then a parent must be present.
- The student must present a photo ID. It can be a school ID, a driver's license, or a passport.
- The parent must present their photo ID.
- If a student is taking an exam at a test center, then he or she will have an option to use a whiteboard. Students taking the exam at home can use a digital whiteboard tool.

TEST CENTER DELIVERY

- If a student takes their test at a Test Center, they must arrive at least 30 minutes early.
- If a student is 18 years of age or older, the student will need to present two forms of ID. One must be a photo ID. Here are the options:
 - Driver's license and a credit card (with student's name on the credit card)
 - Driver's license and Social Security card
 - Driver's license and passport
 - School ID (must have photo) and a credit card (with student's name on the credit card)
 - School ID and Social Security card
 - School ID and passport
- If the student is 17 or younger:
 - Student's school ID and an accompanying parent's photo ID (driver's license) to verify identity
 - Student's driver's license and an accompanying parent's photo ID (driver's license) to verify identity
 - Student's passport and an accompanying parent's photo ID (driver's license) to verify identity
- The student will have their picture taken and be asked to sign a signature pad.



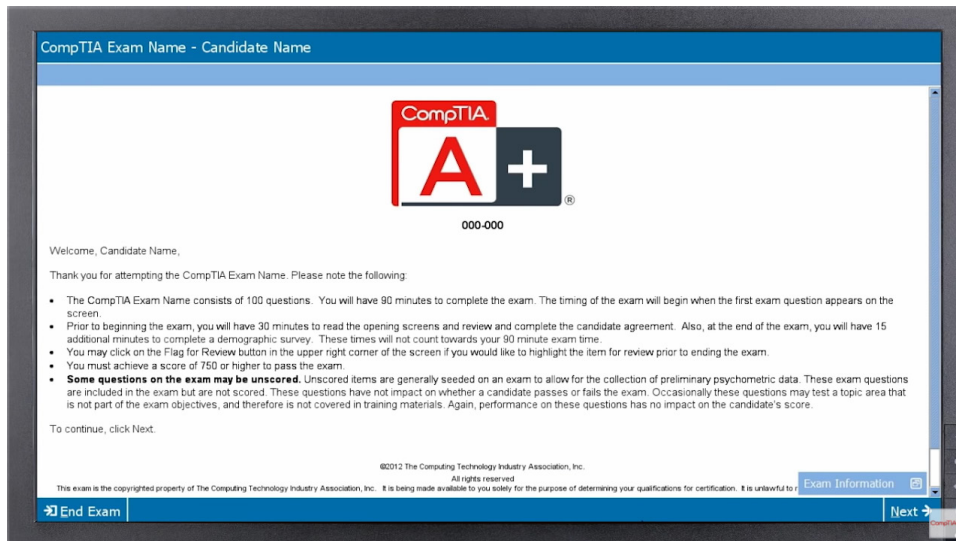
- Once checked in, a proctor will ask the exam candidate to store electronic devices and bags in a locker.
- At this time, the proctor should ask whether the exam candidate wants a dry erase board for notes. Always say yes. If the proctor does not offer a dry erase board, ask for one. This is a critical item.
 - For at-home exam candidates, a virtual whiteboard tool is provided.
- The proctor will escort the exam candidate to a test station and log him or her in.

ON THE TEST INSTRUCTION

Use this link to see a video of the information below.

- <https://www.comptia.org/testing/testing-options/about-comptia-performance-exams>

Welcome Screen



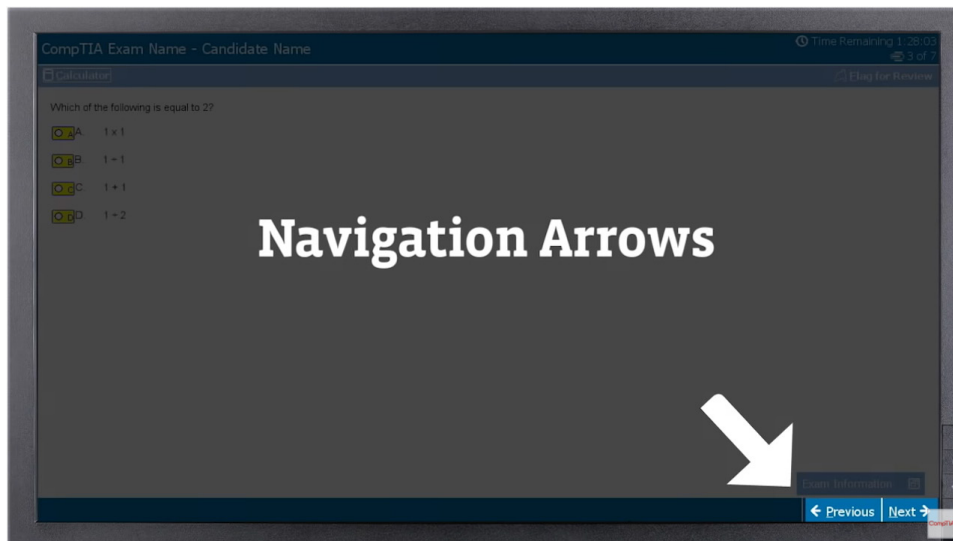
- The first thing the candidate will see is the welcome screen.
- Make sure the correct name appears under Candidate.
- The welcome screen explains how long an exam candidate has to take the test, a passing score, and other information.
- Select **Next**.

CompTIA Candidate Agreement Screen



- After the welcome screen, the NDA screen (non-disclosure agreement) is displayed.
- You have 28 minutes to review this document and select **Agree**.

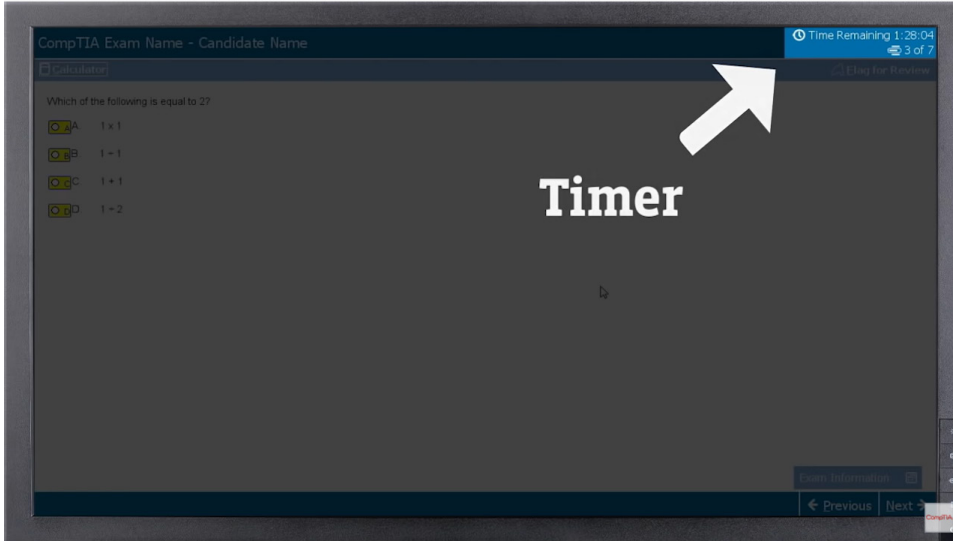
Navigation Arrows



- CompTIA exams allow you to move forward and backward in the question bank by selecting **Next** and **Previous**.

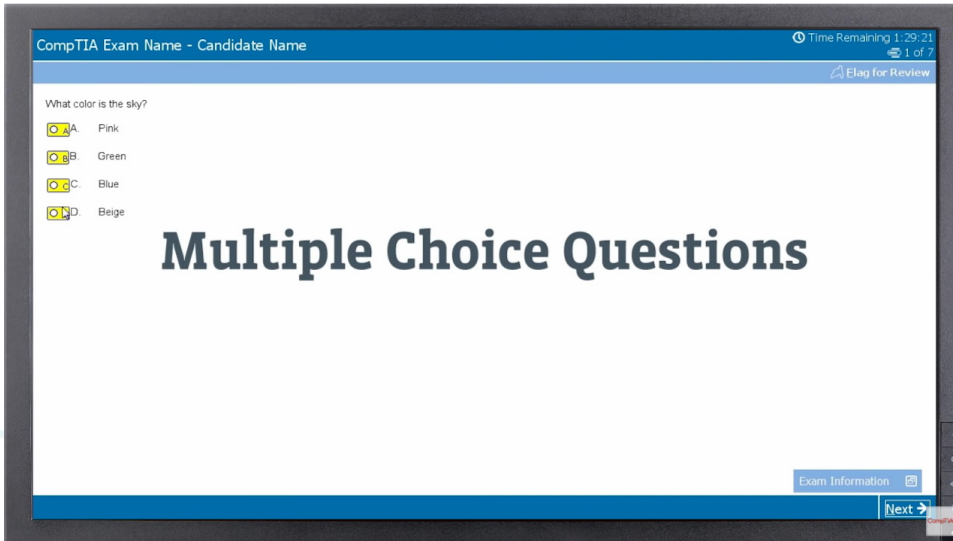


Timer and Question Number



- You must be very aware of your time. In a 75-question exam with 60 minutes to complete, you have 48 seconds per question. You can also see what topic question you are on and how many questions are left. There are two types of questions, multiple choice and multiple response.

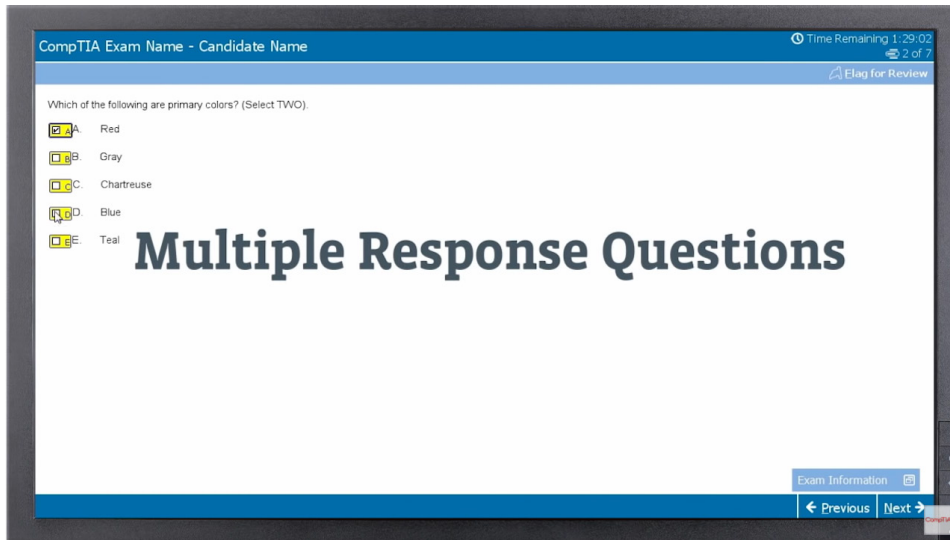
Multiple Choice



- Notice the round buttons. These are called radio buttons. If you see radio buttons, you can only choose one answer.

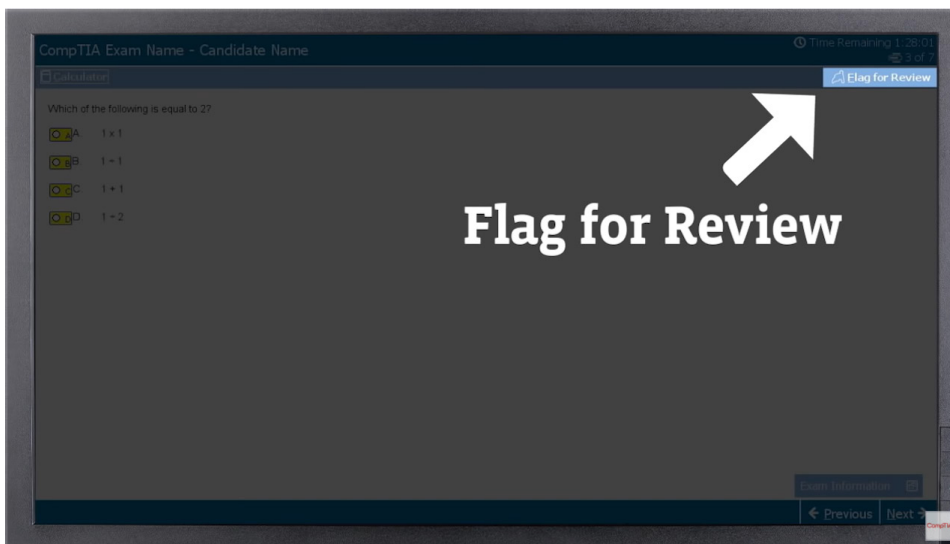


Multiple Response



- Notice the square boxes. These are called check boxes. If you see these check boxes, the software will let exam candidates choose more than one answer; However, it will not let them select more answers than are necessary. If a question says to select two answers, test takers can only select two check boxes.

Flag for Review

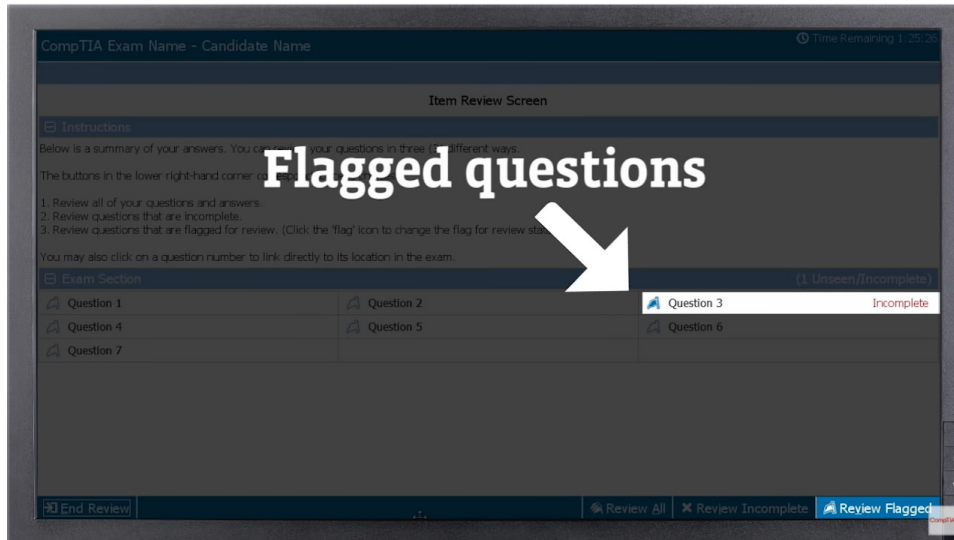


- If you come to a question that will take a long time to answer or if you answered a question but would



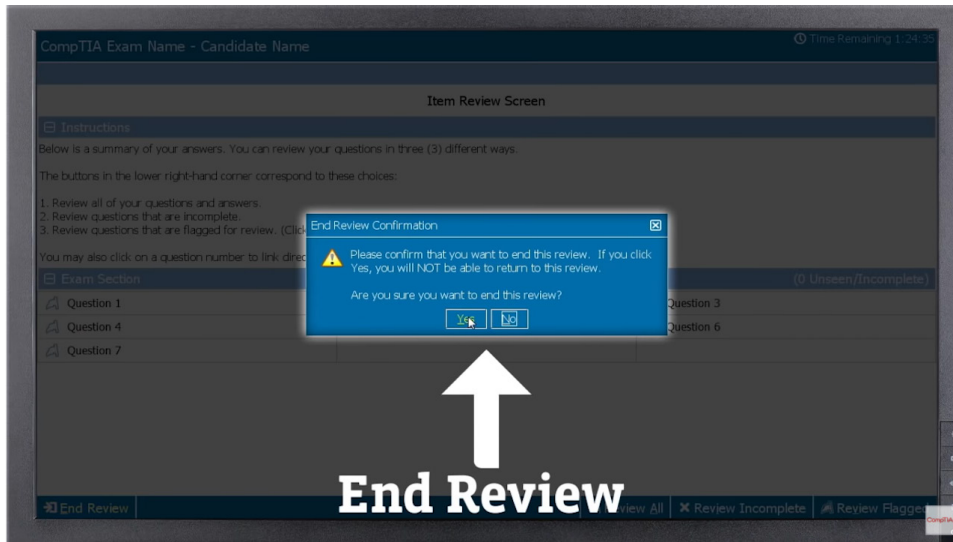
like to look at it again, click **Flag for Review**. Once you go through all the question (remember you can move forward and backward in the test), you can select **Review**. This takes you to the Review screen.

Flagged Questions



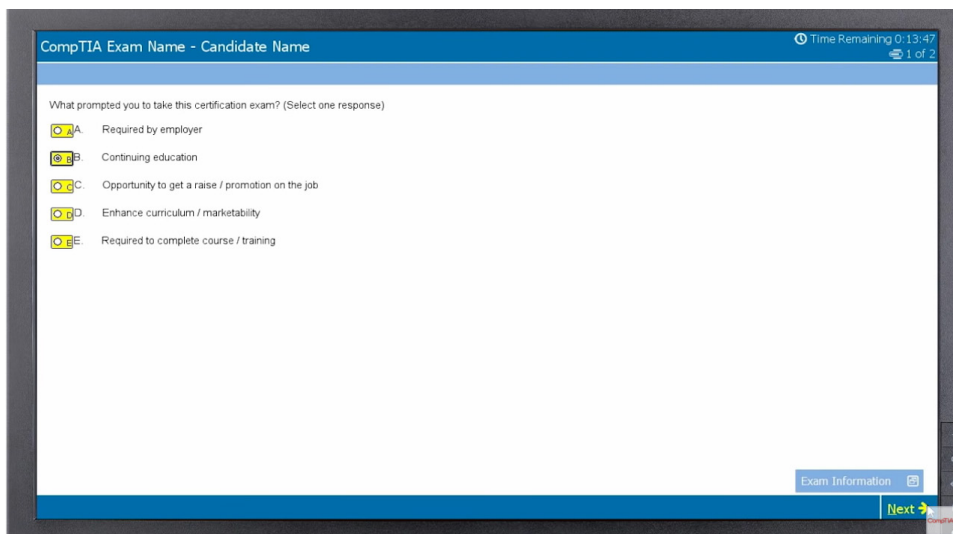
- The Review screen shows all the questions on the test. The blue flags indicate questions flagged by the exam candidate. The candidate can click any flag to view the question, whether the flag is blue or not.
- This is very important. Whether the exam candidate is taking the test at home or at a test center, they will have a whiteboard (dry erase board). If the candidate chooses to flag a question, it is a best practice to write down the question number and two or three words about the question — just enough to trigger a memory. For example, “Question 20 is on Wi-Fi security.” That way, when the candidate enters the review phase, they can be more strategic.
- Flag questions:
 - That you feel are going to take too much time. Save these for last.
 - That you do not understand or know the answer to.
 - That you answered, but feel uncertain about.

End Review Confirmation



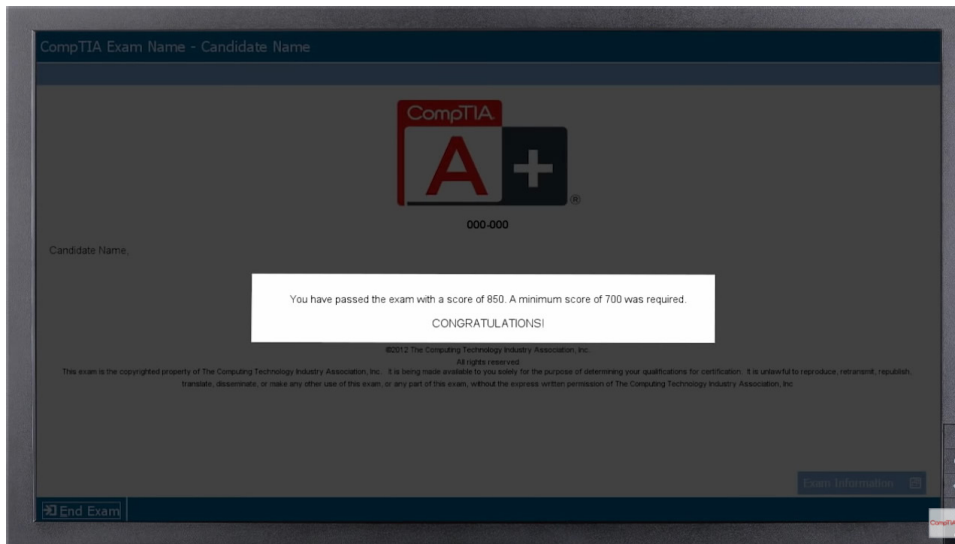
- The Review screen is the last opportunity to look at the questions. Once the exam candidate clicks **End Review**, they cannot return to the question section.

Survey Screen



- When the student ends the review, a survey appears.

Final Score Screen



- After the survey, the final student score appears.

WHEN TAKING AN EXAM, STUDENTS NEED TO REMEMBER THE FOLLOWING GUIDELINES:

- Keep an eye on the time and use it wisely.
 - 60 minutes/75 questions = only 48 seconds per question.
 - Exam time goes by very quickly.
- If you do not know the answer to a question or you are spending more than one minute to answer a question, you should pick the best answer, flag the question, and move on to the next question. Once you have answered all questions, you can use the Review screen to go back to the flagged questions.
 - Flagging questions is a great way to save questions the student struggled with for later.
 - Another good idea is to write down the question number and a short description of the question topic (for example, "Q20 Wi-Fi security").
- You may also use the Next and Previous buttons to go back and forth between questions, but this is time consuming. Using that flag button is a better strategy.



- Use a finger or cursor to help you focus on where you are reading in a question.
- Do not waste time changing an answer multiple times. If you are not 100 percent sure about the answer, the best practice is to stick with your first response.
- Read each question carefully. Some questions ask which option is NOT a correct answer.
- Remember that round choice buttons mean a single choice; square buttons mean to choose all correct answers.
- Remember that CompTIA does not employ negative scoring, and a wrong answer does not hurt you any more than an unanswered question. So make sure to answer every question, even if you do not know the answer.
- Do not obsess over answering every question correctly. There will be questions you will not know the answers to. Make an educated guess, and do not leave any questions unanswered. You can miss several questions and still pass the certification as long as you score higher than 650 out of 900.



Summary

- The CompTIA ITF+ exam is a robust and rigorous certification exam for students who are new to IT. This means that preparing students to take and pass the exam requires several months of extensive study and review.
- Practicing ITF+ exams should be the focus of preparation for 4 to 8 weeks. A student should practice 5 to 10 hours week (40 hours total). Some students might need less practice time, while others need more time. This is a general guideline.
- Before taking the exam, make sure the students are consistently scoring 85 percent or higher on full-length practice exams.
- Make sure students do not just memorize the answers to the practice questions. Use the explanations to learn why an answer is correct or incorrect and then use the reference material link to review the topic.
- Make sure students get plenty of additional practice time to prepare for the questions requiring a skill, such as binary conversion and reading programming code.
- You may also want to teach general test taking skills.



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