

A+ Certification 2009

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First Edition

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A+ Certification 2009
Student Manual

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Introduction

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Session 1

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Session 1 Time Tables

Session 1	
Technician Professionalism	00:17:28
Successful Communication	00:21:07
The Visible PC	00:08:49
Inside the System Unit	00:08:02
Visible Windows	00:10:14
64-Bit Windows	00:08:22
Actual Time	1:14:02

Session 1	
Technician Professionalism	0:26:12
Successful Communication	0:31:40
The Visible PC	0:13:13
Inside the System Unit	0:12:03
Visible Windows	0:17:53
64-Bit Windows	0:15:53
Training Time	1:56:54

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Fill-in-the-Blanks



Instructions: While watching Session 1, fill in the missing words according to the information presented by the instructor.

[References where answers are found are in brackets.]

Introduction

1. The A+ exam is upgraded once every _____ years. **[Introduction]**

Technical Professionalism

1. Operational procedures are also known as _____.
[Operational Procedures]
2. Integrity is the adherence to _____ and _____ principles.
[Honesty and Integrity]
3. Eight should be the minimum number of all _____ for _____.
[Honesty and Integrity]
4. Being _____ for something means being responsible.
[Dependability and Responsibility]
5. Signed documentation of work agreement is crucial _____ before _____ beginning work. **[Authorization of Work]**
6. An agreement should be reached before backing up a _____.
[Authorization of Work]
7. Adaptability is being able to adjust oneself to _____ conditions.
[Adaptability of Versatility]
8. Expectations management involves explaining to clients the _____ required to complete a specific task or project. **[Sensitivity]**

Successful Communication

1. Qualities of active/assertive _____ include: listening, eye contact, no 'you' statements, and not taking things personally. **[What Not to Do]**
2. An IT technician should ask permission from the client before using _____ property, answering _____ phone calls, or answering _____ phone calls. **[Computer Technician Etiquette]**
3. _____ communication is a practice that should always be performed. **[Computer Technician Etiquette]**
4. Having a proper _____ is a good practice when beginning a project. **[Computer Technician Etiquette]**
5. Key elements of successful communication include: the golden rule, _____ communication and _____ communication. **[Computer Technician Etiquette]**
6. A person should _____ handling personal information. **[Computer Technician Etiquette]**
7. When dealing with children it is a good practice to speak with the _____. **[Computer Technician Etiquette]**
8. IT technicians should make themselves available to _____ clients on their computer problems. **[Computer Technician Etiquette]**
9. Electrostatic discharge is a common _____ for IT technicians. **[Electrostatic Discharge]**
10. The anti-static mat should be connected to a _____. **[Anti-Static Mats and Wrist Straps]**
11. _____ equipment should always be used when working with CPU and RAM devices. **[Anti-Static Bags]**
12. Electromagnetic interference _____ data stored on electromagnetic media. **[Electromagnetic and RF Interference]**
13. The proper way to place a box on a table is to place the entire box securely on the _____. **[Physical Safety]**
14. Small spills should be cleaned by the _____. **[Building Safety]**

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The Visible PC

1. _____ provide Inputs and Outputs. [**They System Unit**]
2. A 1/8 inch jack is used for PC audio connections to _____.
[**Audio Connections**]
3. Printers are the main function of _____ ports. [**Legacy Connectors**]
4. A CRT monitor uses a _____ connector. [**VGA Connectors**]
5. Internal hard drives, DVD RW drives, and Floppy disk drives may be found in a _____. [**Drives**]

Inside the System Unit

1. Fans are used to help _____ a PC system. [**Cooling the System**]
2. When handling PC hardware, the card should be held by the _____.
[**Working in the System Unit**]
3. CPU, RAM, Cards, and external I/O items are hooked into the _____.
[**Motherboard**]
4. Ribbon cables are used to connect _____ hard drives. [**Drives**]

Visible Windows

1. Multi-tasking operating system, designed to run multiple processors, and stored folders and files in an NT file system are all features of _____.
[**Workgroups and Domains**]
2. Windows 2000 introduced features such as the _____, and plug and play capabilities. [**Windows 2000 Pro**]
3. Support for remote desktop, support for multiple processors, encrypted file system and NTFS access controls are some of the features on _____ which were not included on Windows XP. [**Windows XP Versions**]
4. Versions of Windows Vista include _____, Business, Home Basic, and _____. [**Windows Vista Versions**]
5. Windows Vista Ultimate and Windows Vista Home Premium contain the _____. [**Windows Vista Versions**]

64-bit Windows

1. A Memory Controller chip is used to connect the _____ to the _____.
[Measuring CPU/RAM Capacity]
2. Windows 7 and Windows Vista come in both _____ and _____ versions.
[64-bit Versions of Windows]

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Glossary Crossword

Instructions: Use the terms and clues below to complete the crossword puzzle.

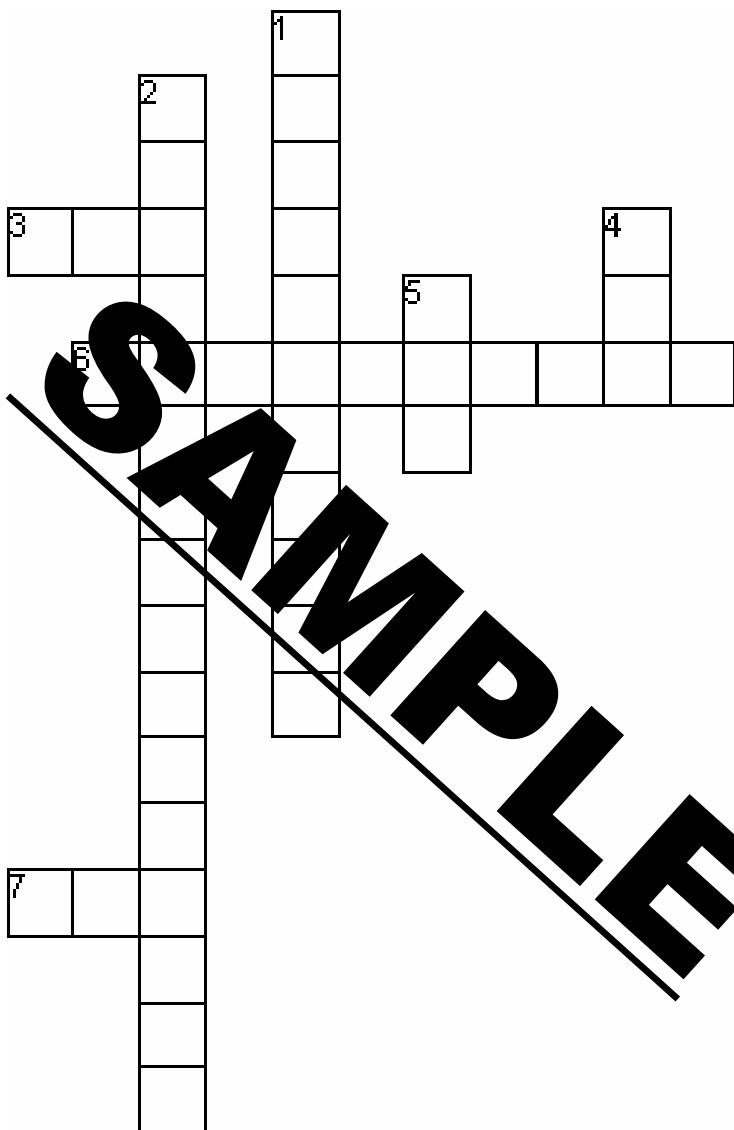
- | | | |
|----------------|----------------------|--------|
| a. EMI | d. building services | g. RFI |
| b. CPU | e. motherboard | |
| c. address bus | f. ESD | |

Across

- Radio frequency interference is multiple radios transmitting on similar bands which interfere with each other.
- A component of a CPU, which is used to communicate with Ram by transmitting the physical address of the data.
- Electromagnetic interference is a disturbance that degrades or limits electrical circuits due to electromagnetic conduction or radiation from an external source.

Down

- The main circuit board that carries the system chips.
- The department in charge of supervising the care and maintenance of a building.
- Central processing unit is the portion of a computer that does most of the data processing. It is the component that is responsible for the interpretation and execution of instructions.
- Electrostatic discharge is the transfer of electrical current that flows between two objects at different electrical potentials.



Glossary Word Search

Instructions: Use the clues below to complete the word search.

- a. EMI
- b. CPU
- c. address bus
- d. building services
- e. motherboard
- f. ESD
- g. RFI

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Z M X R A M F F H C B S H F X S B S N E S T U R Q S Z B Q M
 N D U G Z D T B F T U M X H E K Z M H O I J M V H E B J B V
 H E F Z J Q D E P J F Y Y C R Q C P N X Y Y V D B T I Z T E
 U W J Q S G E F B Z I W G K W R X U A Q X E Z L M Q E G
 H C N N R F H M V V W F B L E J U V H D C H D I P R M V
 W D Q A M S T S R K C P K L T N F V P H E B B Q D Y E J Y
 U Z W U R R H B F D N N M J H A P G I C F F A N O H M
 B M Q T Q Q N D S B T E R Q R T M B U J V S K J R W T
 A Y R Y C F U G B H G U W W G C A Q I T M E L P R O O
 S G N V U S N D G S M L F W L D C P P F V A Z H E L O M
 W R F P T I Y B M A J E G G T I J D M D X O F A H R
 K D C G D H J B F D T J A W G C F K Y R O Z E C V N L Q
 N P C L F D X L U Y C G O G O L N K J T F W S Y E J
 U D I X U K Q U G Y P O O L X X B I A A X Y D C L B H
 Q U F Q Y X H H Z G X G O D Q L E U I V Z S D N S D U N
 B R Q O T R Z T Q Q G S A X S Z I P E K C O T R E O H
 R R I W J P S K Z G Z X X T B F J F I M F I S N B W P
 S E Q J N V N C C A W U D P X K K Y T K M S L G B M G V
 S N J Z A T Q P G Z E O W Y K X U L H F K L E S Z A N M M
 N G W W B W J O W E S A A A J V Q N A R X L J G N X I R N C
 F T F P L D F R H T C X Z T B E A M U S T P R M G U J Y I I
 L U Y I G E Q V F C N J I B H S S V M Z T E T A B T T D N Y
 M D I H G N G O O M A R L J W T K I S K I I X K R I Y M F S
 Y H Q B N Y N Z C K M O T H E R B O A R D U L C L B E S N K
 J Q L N O N Q W A Y D E A M O I O E O F M A I M F K E R T U
 F F K H R I V A X N W I S X K W C C A U H Z H M Z A D H V S
 J R I G U O S N C R G E L U U I Z K M A W G V I E Z Z L P S
 C G U J J Y O X U A Q V N L M D M E O H A U M R X L Y A Q E
 K J Z E I A U Q A V T T O F T T Z V J J S F U Q Q L H Y T L
 P I N J G T D U I N X Q R B V K B B V V U Q L E W O S J I Z

Short Answer

Instructions: Use the information learned while watching Session 1 to answer the questions.

1. List the qualities of active/assertive communication.

2. What are the key elements of successful communication?

3. List which types of drivers found in a C

4. Describe the features of Windows NT.

5. List the features on Windows XP Professional which were not included on Windows XP Home.

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6. What are the different versions of Windows Vista?

7. Discuss the strategies for working with user passwords.

8. Which activities would an IT technician ask permission from the client before performing?

9. List the items which may be connected through USB.

10. List the items hooked into the motherboard.

SAMPLE

11. What are the different versions of Windows XP?

SAMPLE

Glossary Matching

Instructions: Match the glossary term described in Session 1 to its definition.

- | | | |
|----------------|----------------------|--------|
| a. EMI | d. building services | g. RFI |
| b. CPU | e. motherboard | |
| c. address bus | f. ESD | |

1. ___ The main circuit board that carries the system buses.
2. ___ A disturbance that degrades or limits electrical circuits due to electromagnetic conduction or radiation from an external source.
3. ___ Multiple radios transmitting on similar bands which interfere with each other.
4. ___ The portion of a computer that does most of the data processing. It is the component that is responsible for the interpretation and execution of instructions.
5. ___ The transfer of electrical current that flows between two objects at different electrical potentials.
6. ___ The department in charge of supervising the care and maintenance of a building.
7. ___ A component of a CPU which is used to communicate with RAM by transmitting the physical address of the data.

Research Topic



Instructions: Research the topic below using the Internet and then write a few paragraphs reporting your findings. Be sure to research thoroughly and cite sources. This page may be used to take notes.

Research 64-Bit computing and write a report detailing what it is and how it is used.

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Individual Project



Instructions: Assign each student the following project. Each student should prepare a short 5-10 minute class presentation of the information researched.

This project will address the visible PC. It is designed to familiarize students with the proper terminology, as expressed by CompTIA, for the main parts of a computer and how they are connected.

Research the different parts of a computer, inside and outside of the unit. Document where each of these parts and components are located, using their proper terms. Present the work to the instructor and demonstrate proficiency in identifying and naming these components.

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Group Projects



Instructions: Divide into groups and assign each group one of the following subjects to research. Each group should prepare a short 5-10 minute class presentation of the information researched.

1. A portion of the CompTIA exam deals specifically with professionalism. It deals particularly with what to wear, how to act, and how to communicate. This group project will address these topics and how to avoid problems that often occur in the workplace.

As a class discuss professionalism in the workplace. Discuss the various aspects of appearance, honesty, and integrity. Address the different problems that can occur in the work place that are associated with these attributes and conditions. Write them down and discuss what can be done to avoid these problems and fix errors that seem to affect the moral and comfort at work.

In addition to these topics, discuss organization, sensitivity, and responsibility when it comes to working on computer systems in a corporate setting.

2. Two very important attributes of a successful IT technician are communication and physical safety. This group project will address proper communication techniques, as well as ways to avoid physical harm in the workplace while working on computer systems.

Discuss as a class the different aspects of proper communication and workplace etiquette. What is meant by respect and assertive communication? How can communication improve the work environment? How can it cause problems in the workplace?

Once communication has been discussed, address system, and physical safety. Talk about the different hazards that are associated with working with computer devices. Discuss how each of these hazards can be avoided, and the proper procedures that should be followed while working on a computer system.

Topics for discussion should include, but not be limited to:

- Wrist straps
- Antistatic bags
- Antistatic mats
- Electrostatic discharge
- Electromagnetic and RF interference

To complete the project, address building services. CompTIA will address this quite fanatically and students should be prepared to answer questions regarding this topic.

SAMPLE

Session 1 Quiz



Instructions: Circle the letter of the option that BEST answers the question.

- Which are strategies for working with user passwords? Choose all that apply.
 - Ask the user to type their own password
 - Ask the user to set up a temporary password
 - Ask the user to send the password through secured e-mail
 - Ask the user to speak slowly so they only have to say the password once
- Which is crucial documentation to have before beginning work?
 - Deodorant
 - Proper equipment
 - Passwords for accounts
 - Signed documentation of work to be done
- Which should be done when illegal materials are found?
 - Ignore
 - Remove material
 - Report to supervisor
 - Document and continue working
- Which items may be connected through USB? Choose all that apply.
 - Mouse
 - Web cam
 - Keyboard
- When handling PC hardware, where should a card be held?
 - By the edges
 - By the circuitry panel
 - By the metal connections
 - By the plastic handlebars

6. Which items are connected to the motherboard? Choose all that apply.
- A. CPU
 - B. RAM
 - C. Cards
 - D. External I/O items
7. Which are versions of Windows XP? Choose all that apply.
- A. Windows XP Home
 - B. Windows XP Server
 - C. Windows XP Professional
 - D. Windows XP Media Center
8. A 64-bit CPU has the capability to handle approximately 16 TB of RAM.
- A. True
 - B. False
9. Which is the adherence to moral and ethical principles?
- A. Honesty
 - B. Morality
 - C. Integrity
 - D. Virtuous
10. Which is being able to adjust oneself to different conditions?
- A. Versatility
 - B. Moldability
 - C. Adjustability
 - D. Adaptability
11. When dealing with children, which is a correct practice?
- A. Distract the child
 - B. Rebuke the child
 - C. Speak with the parent
12. Which is a common safety hazard for IT technicians?
- A. Fire
 - B. Falling CPU
 - C. Hostile client
 - D. Electrostatic discharge

13. Antistatic equipment should always be used when working with which type of devices?
Choose all that apply.
- A. CPU
 - B. RAM
 - C. Memory stick
 - D. Cooling systems
14. What is the main function of parallel ports?
- A. USB
 - B. Printers
 - C. Monitors
 - D. Keyboards
15. Which types of drives may be found in a PC? Choose all that apply.
- A. DVD-RW drive
 - B. Floppy disk drive
 - C. Internal hard drive
16. Which versions of Windows Vista come with Windows Media Center? Choose all that apply.
- A. Windows Vista Ultimate
 - B. Windows Vista Business
 - C. Windows Vista Home Basic
 - D. Windows Vista Home Premium
17. Which size jack is used for PC audio connections to speakers?
- A. 1 inch
 - B. 1/8 inch
 - C. 1/4 inch
 - D. 1/2 inch
18. Which type of spills should be reported to the building services?
- A. Large
 - B. Small
 - C. Accidental
 - D. Premeditated

19. Which item is used to help cool a PC system?
- A. Ice
 - B. Fans
 - C. Plasma
20. Which type of chip is used to connect the CPU to RAM?
- A. Bit hub
 - B. Central processor
 - C. Pattern regulator
 - D. Memory controller

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Slides & Notes



Notes: _____



Notes: _____



Notes: _____

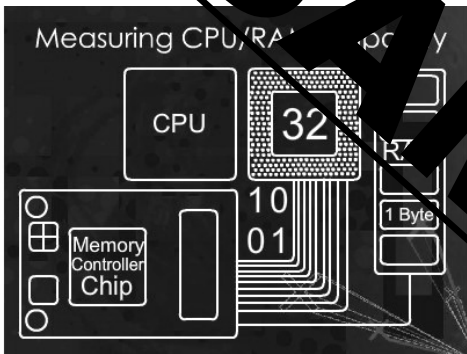
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Slides & Notes

- + Log in to a Windows domain
- + Encrypted file system
- + Support for multiple processors
- + Support for remote desktop
- + NTFS access controls
- + Support for Group Policies



Notes:



Notes:

- ### 64-Bit Versions of Windows
- + Every version of Windows Vista and Windows 7 come in either 32-bit or 64-bit versions
 - + More than 4 GB of RAM in a computer will require the 64-bit version of Windows

Notes:

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