Storage Devices/Peripherals

Units 4 & 5

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AGENDA



Learn about storage devices/peripherals



Ask about deadlines



Make a recommendation

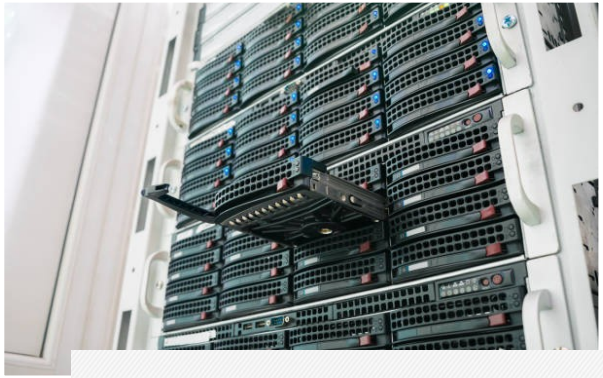
Get ready!

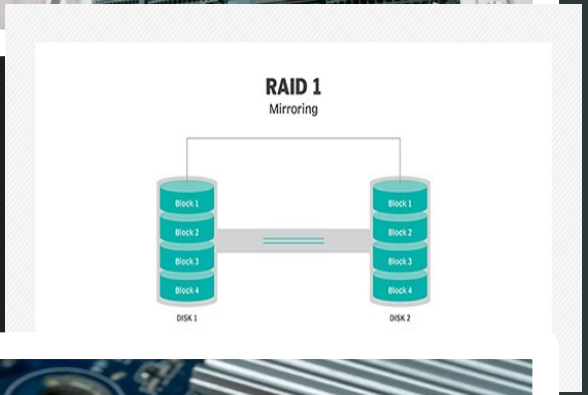
01 Which types of storage devices do people use?

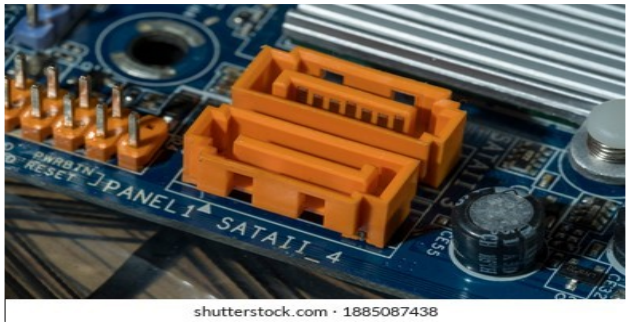
02 What do people use USB flash drives for?

03 How has digital technology changed photography and printing?

04 What types of businesses use scanners, printers and digital cameras?







Array is a group of disk drives that are connected and used as a single unit.

RAID is a method for combining multiple disk drives into a single storage unit that can increase computer performance dramatically.

SATA is an interface for connecting storage devices to a computer system.







CD-R is a blank CD that can have information written on it only once.

CD-RW is a blank CD that can have information written on it multiple times.

A failure occurs when a disk drive malfunctions and the data stored on it cannot be accessed.

Watch a video and answer the questions



- 1. How many types of memory were mentioned in this video? What are they?
- 2. What are the differences of these memories?
- 3. What are the features of the secondary memory?
- 4. Name the types of the storage devices.
- 5. Write about the types of CDs & DVDs?

SIMPLY CODING

Suggestion Form

GENE Tech Systems

Name: Harold Gibbons
Department: IT **Suggestion:**

The IT department is in desperate need of new storage devices. To begin, we need a group of har drives arranged in an **array.** That means we'll also need **RAID** software. Just last week, an engineer lost months of data in a drive **failure**. An array will help us avoid such costly losses in the future.

Furthermore, many employees are still using outdated devices like **CD-Rs, CD-RWs** and **floppy disks** to transfer files. Providing each engineer with at least a **USB flash drive** and a **zip drive** would be much more efficient. Some employees do use their own drives. But state-of-the-art storage devices should be provided by the company.

Finally, GenTech Systems would do well to upgrad the main data backup. We are still using **magnetic tape**. Even using **data compression**, the **memory storage density** of magnetic tape can't compare to modern technology. A 2TB **SATA** drive could store more data at a fraction of the cost.

Reading

2 Read the suggestion form sent from an employee in the IT department to his manager. Then, choose the correct answers.

1 What is the main idea of the form?

A a request for new equipment
B suggestions on improving efficiency
C where to place new storage devices
D how to speed up file transfers

2 Which drive stores more data than magnetic tape?

A zip drive
B RAID
C SATA
D USB flash drive

3 It can be inferred the USB flash drives are...

A less reliable than magnetic tape.
B more efficient than floppy disks.
C more expensive than zip drives.
D less efficient than SATA drives.

Vocabulary

3 **Fill in the blanks with the correct words and phrases from the word bank.**

word BANK

array memory storage density CD-R
zip drive data compression CD-RW
RAID

1 Set up a(n) ___array___ to combine drives.
2 The old drive has low ___memory storage density___ and holds little data.
3 A(n) ___CD-R___ can only be written on once.
4 A(n) ___data compression___ uses removable disks to transfer data.
5 Without ___CD-RW___, no more data will fit on that drive.
6 A(n) ___RAID___ can be written again and again.
7 ___zip drive___ software improves hard drive performance.

4 **Check (✓) the sentence that uses the underlined parts correctly.**

1 → A Save the file on the USB flash drive.
_ B Arrays are made from a series of floppy disks.

2 _ A SATA drives are used to increase processing speeds.
→ B A drive failure means the data disk drive is inaccessible.

3 _ A RAID arrays are made of magnetic tape.
→ B Floppy disks are an older technology.

Listen to a conversation between an IT employee and his manager. Mark the following statements as *True* or *False*.

- 1. The company will purchase an array.
- True
- False
- 2. All of the requests were approved.
- True
- False
- 3. Management thinks a new main data backup device is too expensive.
- True
- False



Listen again and complete the conversation.

Manager: Harold, could I see you for a few minutes?

Employee: Sure, Mrs. Smith. What's going on?

Manager: A few of the requests you sent in have been approved.

Employee: That's great! So what did we get?

Manager: Management didn't like hearing about the **1)** _____ _____ , so we're getting the array.

Employee: Yes, that was pretty bad. What about some of the **2)** _____ _____ ?

Manager: They weren't approved. It just seemed too expensive.

Employee: 3) _____ _____ , but I guess you've got to save money somehow. How about the main data backup?

Manager: We're interested in the savings you mentioned. Could you **4)** _____ _____ _____ a more **5)** _____ _____ ?

Employee: Absolutely. When would you like that?

Manager: 6) _____ _____ _____ _____ .

Employee: Sounds good. I'll have something for you tomorrow.

1. Update the resources
2. update the main data backup
3. give each employee a USB flash drive
4. transfer information from CD-Rs to files
5. back up data
6. get a SATA drive

When do you need ... by?

What do you need it on/then?

I need you to finish that by...

I need ... by...

You are an employee in IT. Use the conversation from Task 8 to complete the memo to your co-workers telling them which types of new equipment were approved for purchase and why.

Memorandum



From: Simon Rogers

To: IT Employees

I am pleased to inform you that a few of our _____ for new equipment have been _____ . We are getting a group of _____ drives arranged in an _____ as management didn't like hearing about the _____ loss. Also, if I can come up with a more detailed _____ regarding the main _____ backup, management is very _____. I look forward to hearing your _____ and any further _____.

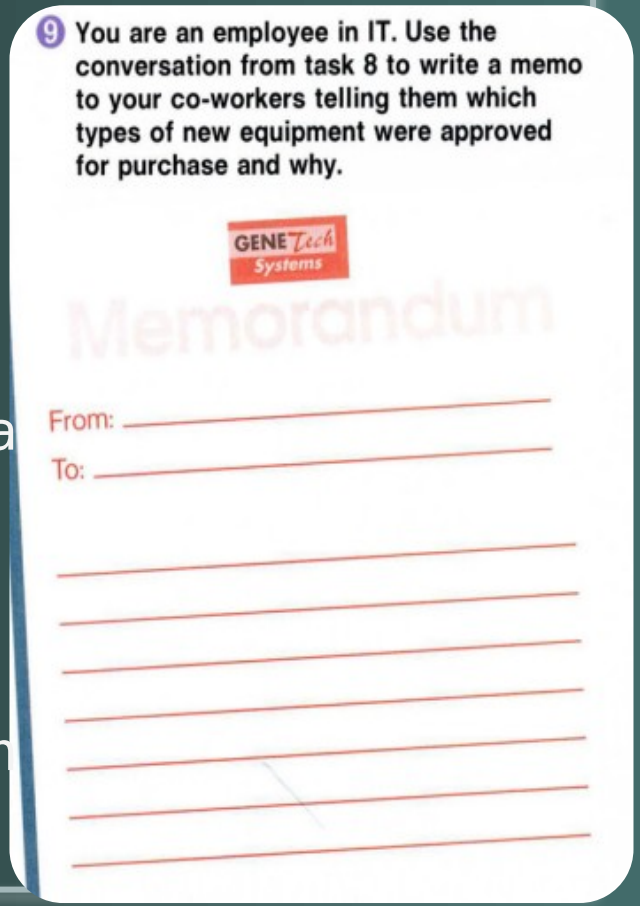
Writing

Suggested answer:

From: Simon Rogers

To: IT Employees

I am pleased to inform you that a few of our requests for new equipment have been approved. We are getting a group of hard drives arranged in an array as management didn't like hearing about the data loss. Also, if I can come up with a more detailed proposal regarding the main data backup, management is very interested. I look forward to



9 You are an employee in IT. Use the conversation from task 8 to write a memo to your co-workers telling them which types of new equipment were approved for purchase and why.

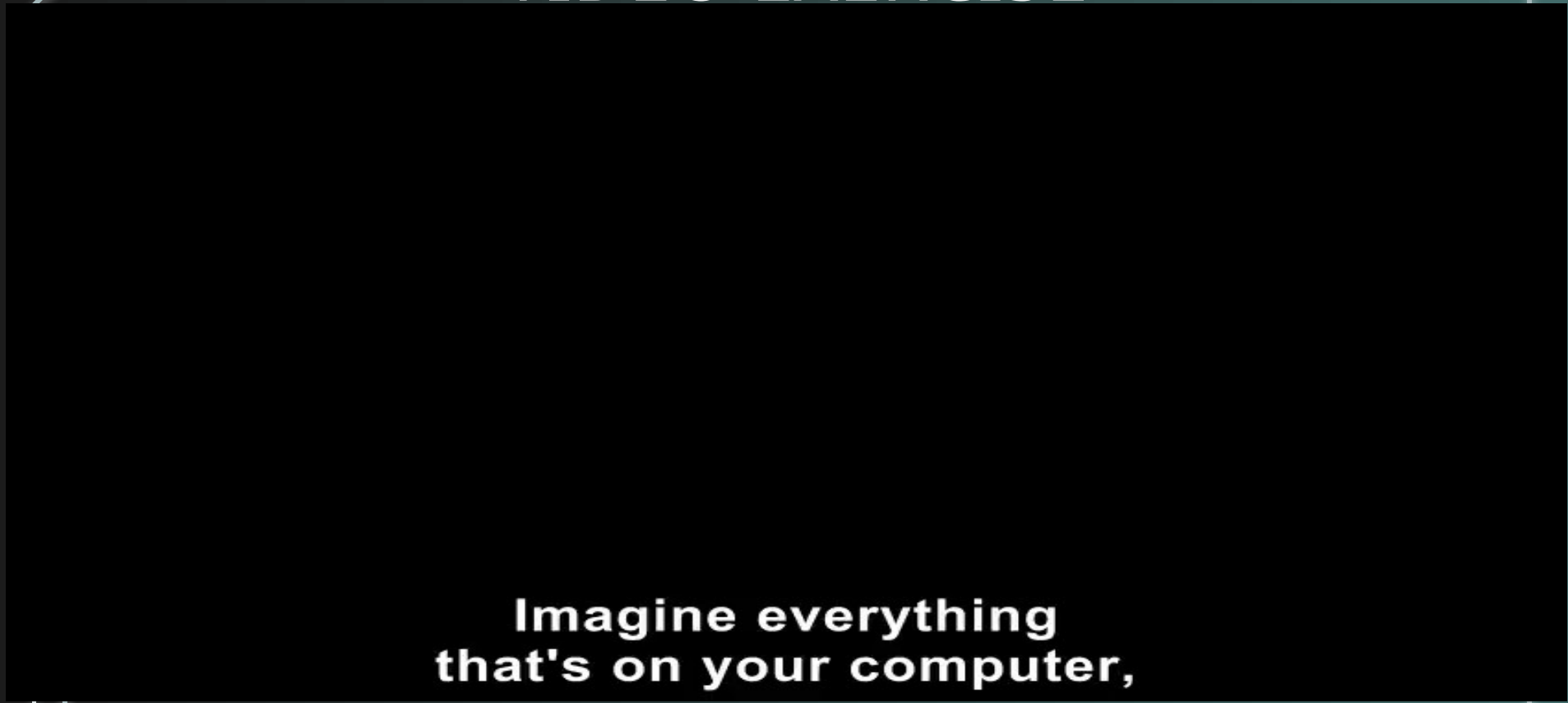
GENETech Systems

Memorandum

From: _____

To: _____

VIDEO EXERCISE



Use the words below to complete the text.

consistently	program	available	files	network	versions

Backing up is the only way for a user to make sure that their **1)** _____ are safe. If a user wants to back up **2)** _____ and regularly then this should be left to the professionals. Apple's built-in app called Time Machine is a good example of a **3)** _____ that can backup the user's files regularly and it even provides different **4)** _____. Users can also do this process manually, but they should remember to back up their settings, shortcuts and all the applications they installed. Some of the equipment **5)** _____ for manual backups are USB keys, a portable external hard drive and NAS, otherwise known as a **6)** _____-attached-drive.

Review the terms

You'll be divided into 2 teams. The word will be written on the board and the first team will be given 10 seconds to make a sentence using that term. If the sentence is correct, the team gets 1 point. But if the sentence is incorrect or they can't make a sentence, then the second team steal the point by using the word correctly.

Group Work Activity

Give a presentation on the pros and cons of various storage devices.



Home assignment

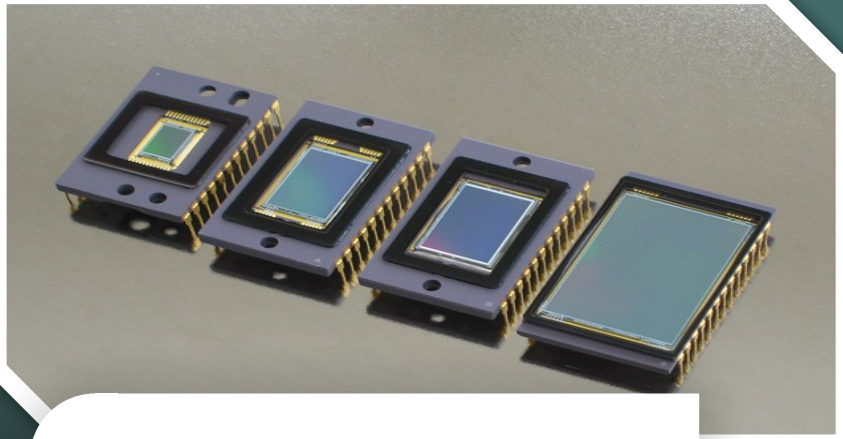
Make a short presentation comparing a report on different storage devices, focusing on aspects like capacity, speed, and cost.

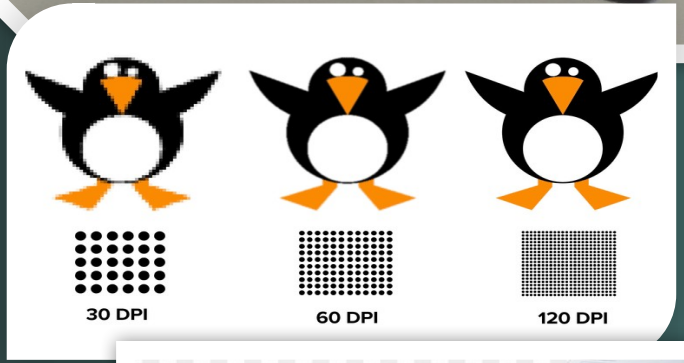

Peripherals

CCDs (Charge-Coupled Device) is a light-sensitive chip that is used when capturing digital images.

DPI (Dots Per Inch) is the number of dots used per inch to create an image.

Automatic document feeder (ADF) is a device that feeds multiple pages into a scanner.



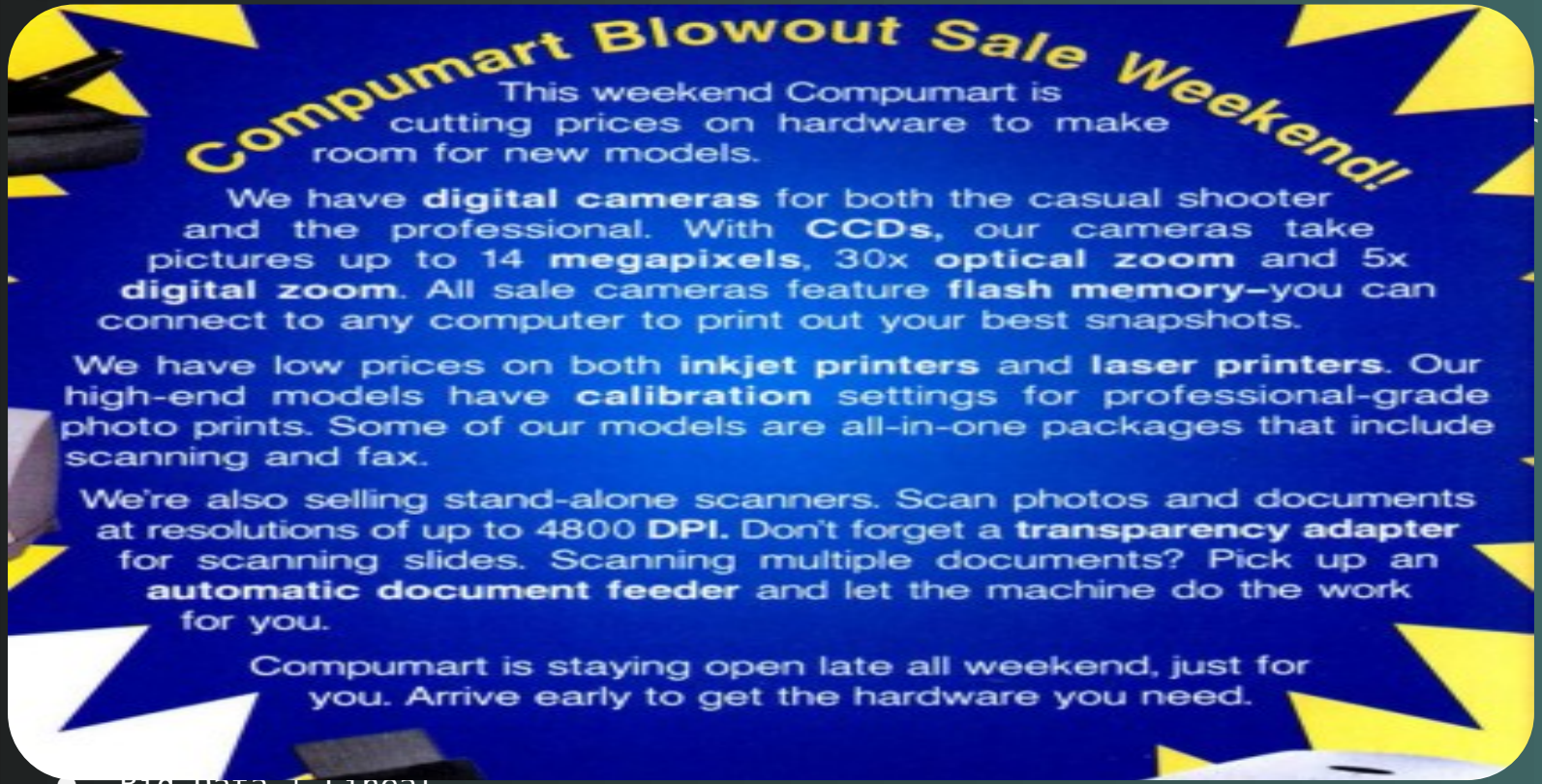




New version of “TIC &TOE”

Two students will go to the board and one by one they write a vocabulary word in each box. One student chooses a grid and writes a word, another student needs to give definition to it. If he/she gets it correct, he/she draws an “X” over the square. Next the other student does the same.





- Big Data | Lineal

2 Read the computer store advertisement. Then, choose the correct answers.

1 What is the advertisement about?

- **A** a new advancement in printer technology
- **B** reduced prices on older hardware models
- **C** Compumart's "going out of business" sale
- **D** accessories for cameras and printers

2 What is NOT true about Compumart's sale?

- **A** They plan to stock up on new models.
- **B** They are cutting prices on software.
- **C** They sell accessories for their scanners.
- **D** They have changed their hours for the sale.

3 What can you infer from the advertisement?

- **A** All new models are on sale.
- **B** Not every digital camera allows flash memory.
- **C** Compumart has scanners that come with auto feeders.
- **D** Some printers cannot create professional grade prints.

Vocabulary

3 Match the words (1-9) with the definitions (A-I).

1 __ DPI
2 __ transparency adapter
3 __ calibration
4 __ automatic document feeder
5 __ inkjet printer
6 __ digital camera
7 __ flash memory
8 __ megapixel
9 __ laser printer

A a device that scans see-through objects
B a device that uses a beam of light to create an image
C a device that uses ink to create an image
D the number of dots used to create an image
E a device used to store pictures on cameras
F a measurement of image size
G the adjustment of devices to correctly display colors
H a device that records images for the computer
I a device that loads papers to be scanned

4 Fill in the blanks with the correct words from the word bank.



1 Using _____ blurs a photo's detail.
2 A thicker lens will increase your camera's _____.
3 Digital cameras need a(n) _____ to capture an image.

5 Listen and read the computer store advertisement again. What do the all-in-one packages for printers incorporate?

Listen to a conversation between a salesman and a photographer. Choose the correct answers.

1. What does the woman want to do?

A return her inkjet printer
B exchange her SuperShot 350
C buy more professional equipment
D research inkjet and laser printers

2. What can you infer about the woman?

A Her last inkjet printer broke.
B She is buying her first digital camera.
C She plans on selling her old equipment.
D She wants to improve the quality of her work.



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Listen again and complete the conversation.

Salesman: You look like you need some help.

Photographer: Yeah. I'm an amateur photographer and I need better equipment.

Salesman: May I recommend the SuperShot 350? It has 15 times **1)** _____ _____ and 2 times digital zoom.

Photographer: That's pretty much what I have now. I'm looking for something a bit **2)** ._____ _____

Salesman: Okay ... how about the SnapPro series? This one has 30 times optical zoom and 5 times digital.

Photographer: How many **3)** _____ does it have?

Salesman: Fifteen, which gives you incredible detail.

Photographer: That **4)** _____ _____ . Now, I'd also like to start printing my own pictures.

Salesman: Well, we have some great deals on inkjet and **5)** _____ _____ .

Photographer: I'm leaning towards a laser printer. Inkjets just can't print as well.

Salesman: Okay, the PrintBeam EX is a two-in-one laser printer and scanner. It prints at 2400 **6)** _____ .

Photographer: That's perfect. Thanks so much.

Understanding Computer Peripherals

A computer peripheral is an external device that connects to a computer to add functionality. Common peripherals include keyboards, mice, printers, and monitors.

Key Peripherals:

Keyboard: A keyboard is used to type letters, numbers, and symbols into a computer. It has keys for each letter and number, as well as special keys like Shift and Enter.

Mouse: The mouse is a pointing device used to control the cursor on the screen. It has two main buttons (left and right) and sometimes a scroll wheel. By moving the mouse, you can move the cursor and click on items.

Printer: A printer is used to produce physical copies of documents and images from a computer. There are different types of printers, such as inkjet and laser printers. Inkjet printers use liquid ink, while laser printers use toner.

Monitor: The monitor is the screen that displays information from the computer. It shows the operating system, applications, and any other visual content. Monitors can come in different sizes and resolutions.

Connecting Peripherals:

Most peripherals connect to a computer via USB ports. Some devices, like mice and keyboards, might use wireless technology, requiring batteries and a wireless receiver.

Based on the scenario, use the conditionals to discuss troubleshooting steps and solutions.

Situation: Your wireless keyboard is not connecting to your computer, and you need to troubleshoot.

- **Instructions: 1.Check Batteries; 2.Check Bluetooth Connection; 3.Reconnect the Device; 4.Restart Devices; 5.Test the Keyboard.**

`Example:` *1. If the keyboard does not connect after replacing the batteries, check if the keyboard is in pairing mode.*

1. Write 3-4 troubleshooting steps using conditional sentences.
For example:
"If the printer is not printing, check if there is paper in the tray."
"If the mouse is not working, make sure it is plugged in.“

2. Create a conversation where one person describes the problem and the other offers solutions using conditional sentences.
For example:
Person A: "My keyboard isn’t connecting to my computer. What should I do?"
Person B: "If the keyboard is not in pairing mode, you need to activate pairing. If it’s still not working, check the batteries."

Role-play scenarios

Scenario 1: The Graphic Designer

Background: A graphic designer is working on several high-resolution projects and needs to ensure they have adequate storage for their large files, including design assets and project backups.

Role-Play: The designer is concerned about running out of storage space and wants a reliable solution that also ensures file security. Students should suggest solutions such as external hard drives, SSDs, cloud storage services with high storage limits, and backup software that automates data backups.

Scenario 2: The Small Business Owner

Background: A small business owner is setting up a new office and needs to store a growing amount of business data, including customer records, financial documents, and marketing materials.

Role-Play: The business owner needs a solution that balances cost, security, and future growth. Students should suggest solutions such as network-attached storage (NAS), cloud storage with encryption options and a combination of local and cloud-based backups.

Thanks!

Do you have any questions?

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