7

TLE

Quarter 0 – Module 2: Performing Computer Operations Part 2

ALTERNATIVE DELIVERY MODE

ADM

TLE – ICT – Computer System Servicing – Grade 7
Alternative Delivery Mode
Quarter 0 – Module 2: Performing Computer Operations
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Quarter 0 – Module 2:
Performing Computer Operations
Part 2

Introductory Message

For the facilitator:

Welcome to the TLE – ICT – Computer System Servicing 7 Alternative Delivery Mode (ADM) Module on Performing Computer Operations!

This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:

Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the TLE – ICT – Computer System Servicing 7 Alternative Delivery Mode (ADM) Module on Performing Computer Operations!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:

	What I Need to Know	This will give you an idea of the skills or competencies you are expected to learn in the module.
	What I Know	This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.
	What's In	This is a brief drill or review to help you link the current lesson with the previous one.
	What's New	In this portion, the new lesson will be introduced to you in various ways; a story, a song, a poem, a problem opener, an activity or a situation.
	What is It	This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.
	What's More	This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.
	What I Have Learned	This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.
	What I Can Do	This section provides an activity which will help you transfer your new

		knowledge or skill into real life situations or concerns.
	Assessment	This is a task which aims to evaluate your level of mastery in achieving the learning competency.
	Additional Activities	In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned.
	Answer Key	This contains answers to all activities in the module.

At the end of this module you will also find:

References	This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!

What I Need to Know

This module was designed and written with you in mind. It is here to help you master the nature of Biology. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module is divided into three lessons, namely:

- Lesson 4 – Transfer Data Using Computer Software
- Lesson 5 – Using Browser to Locate Information
- Lesson 6 – Basic Computer Maintenance

After going through this module, you are expected to:

1. transfer files and data between compatible systems using computer software, hardware/peripheral devices;
2. adhere to standard operating procedures when transferring files and data;
3. establish information requirements for internet search;
4. follow steps in launching browser and loading search engine;
5. implement basic file maintenance procedures in line with the standards operating procedures;
6. appreciate the importance of basic file maintenance.

What I Know

Multiple Choice. Select the letter of the correct answer for each question. Write the answers in your notebook.

1. It is a wireless technology that allows the exchange of data between different devices in short distances.
   a. Wi-Fi   b. ShareIt   c. Bluetooth   d. USB

2. Which of the following does not belong to the group?
   a. flash drive   b. iCloud   c. Dropbox   d. OneDrive

3. It is an application use to share files between cellphones with only the Bluetooth is on.
   a. Wi-Fi   b. ShareIt   c. Blueteeth   d. USB

4. Which is an example of online storage?
   a. One Drive   b. Google   c. Twitter   d. Disk Drive

5. What is the complete name of WWW?
   a. World Wire Web   c. World Wide Web
   b. World Wire Wed   d. World Wise Wed

6. What year was this URL-based information system published publicly?
   a. 1990   b. 1991   c. 1992   d. 1993

7. Which of the following does not belong to the group?
   a. Google Chrome   c. Microsoft Edge
   b. Mozilla Firefox   d. Safari Forest

8. It is a process in which you create a copy of your computer files.
   a. System Update   c. Virus Scan
   b. Data Backup   d. All of the Above

9. What will happen if you avoid computer updates?
   a. slows down computer system   b. gives a disk clean up
   c. speeds up computer system   d. nothing happens

10. It is a malicious code in our computer system which infiltrates personal data.
   a. Anti-Virus   b. Software   c. Malware d. Pandemic

11. As a computer technician we should maintain our computer systems by
   a. Scanning viruses regularly   c. Maintaining software updates
   b. Checking system problems   d. All of the above

12. A process of computer system which cleans up your disk and improves performance.
   a. Malware maintenance   c. Disk maintenance
   b. Data maintenance   d. None of the above

13. To avoid data infiltration from viruses you must
   a. Install anti-virus/spyware program   c. Install operating system
   c. Install disk defragment program   d. Install system updater

14. It is a type of data backup which happens once a day.
   a. System image backup   c. Full File Backup
   b. Differential file backup   d. None of the above

15. A type of malware which steals your internet data usage and sensitive information.
   a. Trojan   b. Worm   c. Spyware   d. Spam

Lesson 4 — Transfer Data Using Computer Software

What's In

For the review and introduction to this lesson, answer the following questions:

- What are the different input and output devices?
- What devices will you use in transferring data from one device to another?
- How is data transferred from one device to another done?

What's New

Identification.

Direction: Identify four (4) other hardware or peripheral devices or software that are used to transfer data. Write answers in your notebook.

1. Bluetooth
2. _____
3. _____
4. _____
5. _____

What is It

Transfer Files and Data

There are several ways on how to transfer files and data between compatible systems using computer software, hardware and peripherals devices. You need to know the following:

1. **Files** such as documents, pictures, music and email, and
2. **Peripherals or hardware** this is where you can transfer from one device to another just like computer to flash disk or vice versa, cellphone to cellphone, computer to computer and so on.

Ways to Transfer Files and Data

1. Computer to Computer
In this way, you will use a local connection or router either wired or wireless connections where the computers are connected to the same network to meet and can transfer files to each other.
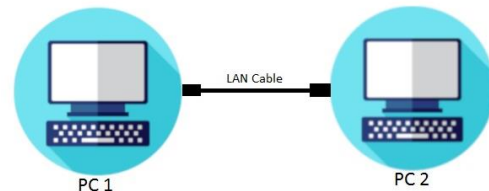
2. Computer to External Storage Device
Here, you need of course an external storage just like flash disk or memory card where you can transfer files from computer to external storage or vice versa.
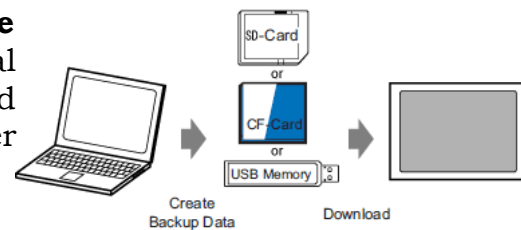
3. Mobile Phone to Mobile Phone
In these two same devices, **Bluetooth** connection should be turned on in order to transfer files from each other. Others prefer to use the **ShareIt** (third party software) applications because it is very fast and easy to install.

4. Computer, Cellphone, Laptop to Online Storage
You can transfer files from computers and cellphones or vice versa easily using cloud storage services like OneDrive, Dropbox or Google drive.

When transferring files from different devices to online storage, make sure you are connected to the internet. Applications are available to download and install for easy access of the online storage.
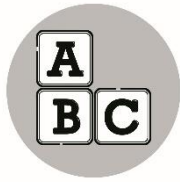
What's More

Identify the following images of the hardware/peripherals that is used to transfer files from the computer system to other peripherals. Choose your answers from the WORD BANK. Write your answer in your notebook.

WORD BANK	Hardware/Peripheral	Answer
		1. <u>Universal Serial Bus (USB)</u>
Universal Serial Bus (USB) External Hard Drive ShareIt Cellphone Bluetooth		2. _____
		3. _____
		4. _____
		5. _____

What I Have Learned

Below are some important concepts regarding the previous lesson. Add another item to show what you have learned from the lesson. Write your answer in your notebook.

1. **Bluetooth** is a wireless technology that allows the exchange of data between different devices. However it is only on a short distance for the devices to stay connected.
2. **Online Storage** is a cloud storage of the files and data especially for back up purposes. It is for free. Most of the websites allowed limited storage only.
3. **External Storage** device comes in many forms, both removable and non-removable. It includes flash drive, floppy disk, hard drive or compact drive.
4. _____
   _____
   _____.

What I Can Do

In this activity, you are to write a detailed steps in any one of the ways in transferring files and data. Write the answer on a short sized bond paper. The rating criteria is shown below.

Relevance and Content	-	70%
Creativity	-	30%
Total	-	100%

Lesson 5
Using Browser to Locate Information

What's In

In the early age, researching of information is quite hard and challenging. You need to locate the book and the author name in order to research in the library. Today locating information is being made easy. In just one click, you can see many options to choose from the same topic.

How do you think using computer browser make locating information easier?

What's New

Can you name the different browsers? Try to identify four (4) other browsers in the World Wide Web. Write your answers in your notebook.
1. Google Chrome
2. _____
3. _____
4. _____
5. _____

What is It

Web Browser and World Wide Web

Web Browsers are software installed on your PC. On the Web, when you navigate through pages of information, this is commonly known as web browsing or web surfing.

Sir Tim Berners-Lee is a British computer scientist. He invented the World Wide Web in October 1990. He wrote the first web page editor/browser which is WorldWideWeb.app and the first server which httpd. The first web page was served on the open internet by the end of 1990.

It was in the year 1993 that CERN, a European Organization for Nuclear Research, where Sir Tim was working, to announced the global wave of creativity, collaboration and innovation.

In 1994, Sir Tim moved to Massachusetts Institute of Technology to found the World Wide Web Consortium (W3C), an international community devoted to developing open web standards. He remains the Director of W3C to this day.

Parts of Web browser:

• *HyperText Markup Language (HTML) -* This is the markup or format language for the web.

• *Uniform Resource Identifier (URI) -* A kind of "address" that is unique and used to identify to each resource on the web. It is also commonly called a URL.

• *Hypertext Transfer Protocol (HTTP) -* Allows for the retrieval of linked resources from across the web.

Web Browser Types

Internet Explorer
Internet Explorer (IE) is a product from software giant Microsoft. This is the most commonly used browser in the universe. This was introduced in 1995 along with Windows 95 launch and it has passed Netscape popularity in 1998.

Google Chrome
This web browser is developed by Google and its beta version was first released on September 2, 2008 for Microsoft Windows. Today, chrome is known to be one of the most popular web browser with its global share of more than 50%.

Mozilla Firefox
Firefox is a new browser derived from Mozilla. It was released in 2004 and has grown to be the second most popular browser on the Internet.

Safari

Safari is a web browser developed by Apple Inc. and included in Mac OS X. It was first released as a public beta in January 2003. Safari has very good support for latest technologies like XHTML, CSS2 etc.

Opera

Opera is smaller and faster than most other browsers, yet it is full- featured. Fast, user-friendly, with keyboard interface, multiple windows, zoom functions, and more.
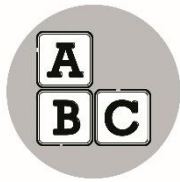
What's More

In this activity, identify the owner or company of the following browser images. Choose your answers from the WORD BANK. Write your answer in your notebook.

WORD BANK	Hardware/Peripheral	Answer
Mozilla Corporation Google Company Apple Company Microsoft Company Norwegian Company		1. _____
		2. _____
		3. _____
		4. _____
		5. _____

What I Have Learned

Below are some important concepts regarding the previous lesson. Add another item to show what you have learned from the lesson. Write your answer in your notebook.

1. **World Wide Web** is called as WEB. It is an information system on the Internet which allows documents or pages to be connected to other documents using hypertext links, which enable the user to search for information or data by moving from one document to another.
2. **HyperText Markup Language (HTML).** This is the markup (formatting) language for the web.
3. **Uniform Resource Identifier (URI).** A kind of "address" that is unique and used to identify to each resource on the web. It is also commonly called a URL.
4. **Hypertext Transfer Protocol (HTTP).** Allows for the retrieval of linked resources from across the web.
5. _____
_____
_____.

What I Can Do

In this activity, you will use a web browser to locate the information on the topic "computer maintenance" and answer the questions that follow in your notebook.

Note: (As this activity needs a cellphone/PC and internet connection, please proceed only if you have them. If you don't have them, please ask assistance through call to any relative who can assist you. However, if the first two options are still difficult to do, you may perform this activity later when the health advisories will allow for face-to-face classes.)

1. What browser did you use in locating the information?
2. What website location did you click? What is the URL of the site?
3. What copyright year and name of the website?
4. Copy one paragraph about computer maintenance on the site that you visit.

Lesson 6 | Basic Computer Maintenance

What's In

Do you own any device? What do you do to keep it working? In this lesson, you will learn how to take care of computers.

What's New

Quick Check

Copy the worksheet below in your notebook and check the corresponding column for the status of your knowledge on basic computer maintenance.

AREA	STATUS		
	I have no idea about this.	I have a little knowledge on this.	I can perform this task.
1. Anti-Spyware Program			
2. Anti-Virus Program			
3. System Maintenance			

What is It

Maintenance of Computer System

Perhaps you have handpicked the finest computer with the selected fastest processor and graphic card and with a few gigabytes of memory. So, you thought to yourself that your machine is probably going to sustain you for the next five (5) years. But little did you discover that some six months down the road, your computer is behaving like a Pentium computer, perpetually flustering you with its choppy images, frustrating pop-ups and tremendously slow disk access. Gradually, your computer crashes and all your data is lost on one fine afternoon.

One thing you have probably missed out is the need for system maintenance. The basic routine maintenance comprises of the 3 basic processes: data backup, malware maintenance and disk or file maintenance.

Data Backup

Backing up basically means creating a redundant copy of a data so that in case anything happens to the original data, you have a spare copy. This is typically a simple thing to do.

What data should I back up?

In general, you should back up any work or data that cannot be replaced easily. Some examples are word processing documents, spreadsheets, databases (for financial data), customer data, and personal files such as pictures, music files, emails, etc. As a rule of thumb, do not backup programs or system folders. Programs will need to be reinstalled before you can run them and system folders can be restored from your operating system install disc. Be sure to save program installation discs, operating system discs, and registration information in a safe place. If you have downloaded any of your applications, you should save the install files whenever possible.
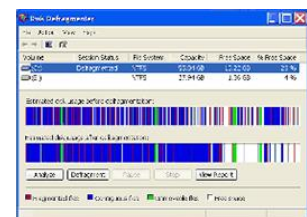
Malware Maintenance

Malware refers to any kind of malicious codes, objects or content that infiltrates your computer, resulting in damage and causing your system to act in an undesirable manner. Commonly, these include viruses, spyware, worms, trojan horses, spams and many more. When you are infected, you can lose your privacy, confidential data, and access to your system when software and hardware are damaged. Fortunately, there are a couple of preventive measures you can take to protect yourself from malware.

One thing you can do to scan the file for any virus infection before you attempt to open it. If the scan shows nothing, it is probably a safe file. But then again, it may be a new virus yet to be updated in your virus scan. You can either wait and apply the next virus signature update and perform a second scan or risk it all and open the file.

Disk Maintenance

Did anyone tell you that your hard disk is a tricky machine? When you first installed your operating system, you may be pleased to know how smooth and efficient your software applications are running. But gradually, it slows down and this bothers you. What truly causes the decline in performance? This has much to do with the way you operate on your system.

To do disk maintenance, uninstall any unnecessary software and defragment your disk. Typically, your system performance will decline when the amount of data in your hard disk starts to grow.
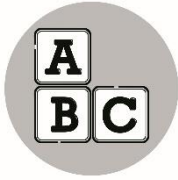
What's More

In this activity, list down the five (5) types of malware. Write your answer in your notebook.

1. _____
2. _____
3. _____
4. _____
5. _____

What I Have Learned

Below are some important concepts regarding the previous lesson. Add another item to show what you have learned from the lesson. Write your answer in your notebook.

1. **Malware** refers to any kind of malicious codes, objects or content that infiltrates your computer, resulting in damage and causing your system to act in an undesirable manner.
2. **Disk Clean-up** (cleanmgr.exe) is a computer maintenance utility included in Microsoft Windows designed to free **up disk** space on a computer's hard drive.
3. **Back up** It means creating a redundant copy of a data so that in case anything happens to the original data, you have a spare copy.
4. _____ _____.

What I Can Do

Write an essay about the importance of Data Backup. Relate your statements to the most treasured skills you acquired in the lesson. Give also your own title for the essay (minimum of 400 words). Write it in a short size bondpaper.

The rating criteria is shown below.

Relevance and Content - 70%
Creativity - 30%
Total - 100%

Assessment

Multiple Choice. Select the letter of the correct answer for each question. Write the answers in your notebook.

1. It is a wireless technology that allows the exchange of data between different devices in short distances.
   - a. Wi-Fi
   - b. ShareIt
   - c. Bluetooth
   - d. USB

2. Which of the following does not belong to the group?
   - a. flash drive
   - b. iCloud
   - c. Dropbox
   - d. OneDrive

3. It is an application use to share files between cellphones with only the Bluetooth is on.
   - a. Wi-Fi
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   - c. Blueteeth
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4. Which is an example of online storage?
   - a. One Drive
   - b. Google
   - c. Twitter
   - d. Disk Drive

5. What is the complete name of WWW?
   - a. World Wire Web
   - b. World Wire Wed
   - c. World Wide Web
   - d. World Wise Wed

6. What year was this URL-based information system published publicly?
   - a. 1990
   - b. 1991
   - c. 1992
   - d. 1993

7. Which of the following does not belong to the group?
   - a. Google Chrome
   - b. Mozilla Firefox
   - c. Microsoft Edge
   - d. Safari Forest

8. It is a process in which you create a copy of your computer files.
   - a. System Update
   - b. Data Backup
   - c. Virus Scan
   - d. All of the Above

9. What will happen if you avoid computer updates?
   - a. slows down computer system
   - b. gives a disk clean up
   - c. speeds up computer system
   - d. nothing happens

10. It is a malicious code in our computer system which infiltrates personal data.
    a. Anti-Virus   b. Software   c. Malware d. Pandemic

11. As a computer technician we should maintain our computer systems by
    a. Scanning viruses regularly   c. Maintaining software updates
    b. Checking system problems   d. All of the above

12. A process of computer system which cleans up your disk and improves performance.
    a. Malware maintenance   c. Disk maintenance
    c. Data maintenance   d. None of the above

13. To avoid data infiltration from viruses you must
    a. Install anti-virus/spyware program   c. Install operating system
    c. Install disk defragment program   d. Install system updater

14. It is a type of data backup which happens once a day.
    a. System image backup   c. Full File Backup
    b. Differential file backup   d. None of the above

15. A type of malware which steals your internet data usage and sensitive information.
    a. Trojan   b. Worm   c. Spyware   d. Spam

Additional Activities

Direction: Answer the riddle below about computer. Write the answer in your notebook.

- I have many keys but usually only two or three locks. What am I?

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