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# Computer Systems Servicing



**Computer Systems Servicing**  
**Quarter 1 – Module 11: Computer disassembly procedures**

**First Edition, 2020**

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# **Computer Systems Servicing**

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## **Quarter 1**

### **Self-Learning Module 11**

#### **Computer disassembly procedures**



# Introductory Message

For the Facilitator:

Welcome to the **Computer Systems Servicing** Self-Learning Module on **Computer disassembly procedures!**

This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) in developing this instructional resource.

This learning material hopes to engage the learners in guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs, namely: Communication, Collaboration, Creativity, Critical Thinking, and Character 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. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the Learner:

Welcome to the **Computer Systems Servicing** Self-Learning Module on **Computer disassembly procedures!**

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 material while being an active learner.

This module has the following parts and corresponding icons:



**Expectations** - This points to the set of knowledge and skills that you will learn after completing the module.



**Pre-test** - This measures your prior knowledge about the lesson at hand.



**Recap** - This part of the module provides a review of concepts and skills that you already know about a previous lesson.



**Lesson** - This section discusses the topic in the module.



**Activities** - This is a set of activities that you need to perform.



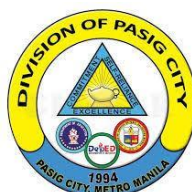
**Wrap-Up** - This section summarizes the concepts and application of the lesson.



**Valuing** - This part integrates a desirable moral value in the lesson.



**Post-test** - This measure how much you have learned from the entire module.





## EXPECTATIONS

After completing this lesson, you should be able to:

1. Identify the procedures in disassembling a computer.
2. Demonstrate the proper procedure in disassembling a computer.
3. Value the importance of disassembling a computer.



## PRE-TEST

Direction: Read each statement carefully. Write the letter of the correct answer.

\_\_\_\_\_ 1. When wearing the anti-static wrist wrap, where should the other end (aside from the wrist) should you clip the wrap onto?

- |                    |                               |
|--------------------|-------------------------------|
| a. I/O Bezel Plate | c. Unpainted part of the case |
| b. Any screw       | d. Standoffs of the case      |

\_\_\_\_\_ 2. Ideally, what is the LAST component that you take out in the disassembly process?

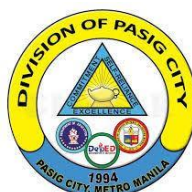
- |        |                            |
|--------|----------------------------|
| a. CPU | c. CPU Fan                 |
| b. RAM | d. Power Supply Connectors |

\_\_\_\_\_ 3. Which of the following is *not* included before disassembly?

- a. Prepare the tools and materials
- b. Turn off the computer and unplug the AVR
- c. Remove all the cables or connectors from the system unit back panel
- d. Back-up the computer

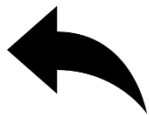
\_\_\_\_\_ 4. After disassembling a computer, what do you usually do before re-assemble the components again?

- a. Let them dry through the air conditioner or at room temperature
- b. Use a well sanitized moist cloth and wipe the components neatly
- c. Note the specifications
- d. Put them away in a clean and secure box



\_\_\_\_\_ 5. The following are wirings from the power supply connected to the motherboard *except for*:

- a. 24-pin ATX power connector
- b. SATA power connector
- c. 2-pin power connector
- d. 4-pin power connector



## RECAP

Direction: Read each statement below carefully about OHS. Write **T** if the statement is TRUE. Write **F** if the statement is FALSE.

- \_\_\_\_\_ 1. Shut down and unplug the computer before you make any attempts to disassemble.
- \_\_\_\_\_ 2. Take off any metal objects on your arms or fingers such as bracelets, rings or watches.
- \_\_\_\_\_ 3. Make sure your hands are completely dry to avoid damaging any mechanical parts as well as to avoid electrocution.
- \_\_\_\_\_ 4. Place each piece you remove carefully down onto unstable surface.
- \_\_\_\_\_ 5. Before touching any part within the tower, put your hands against another metal surface to remove static charge



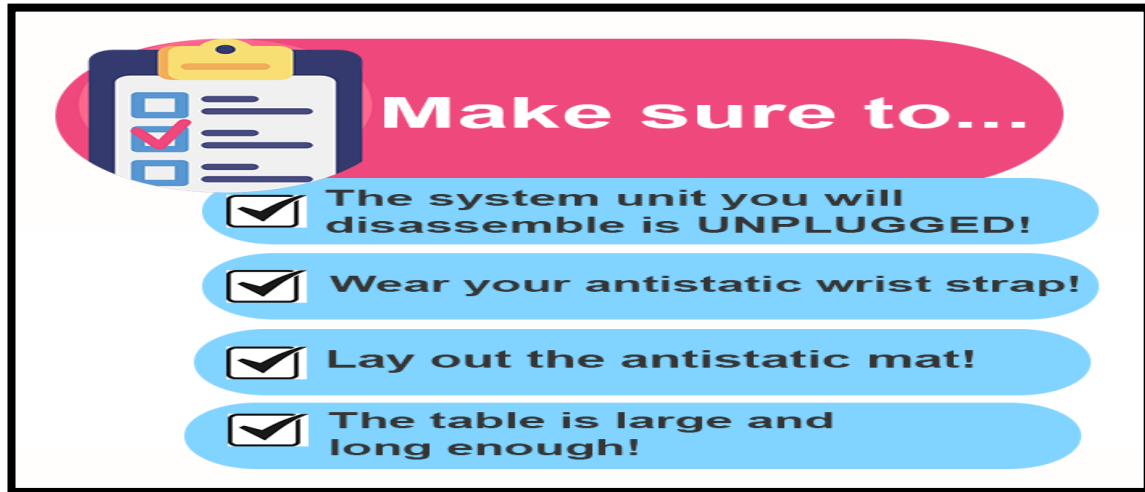
## LESSON

### Preparing for Disassembly

Before going into the disassembly proper, you will have to prepare all the materials that you will need.







[https://www.e-tesda.gov.ph/pluginfile.php/115507/mod\\_book/chapter/1792/Disassembly%20Preparing%20%281%29.png](https://www.e-tesda.gov.ph/pluginfile.php/115507/mod_book/chapter/1792/Disassembly%20Preparing%20%281%29.png)

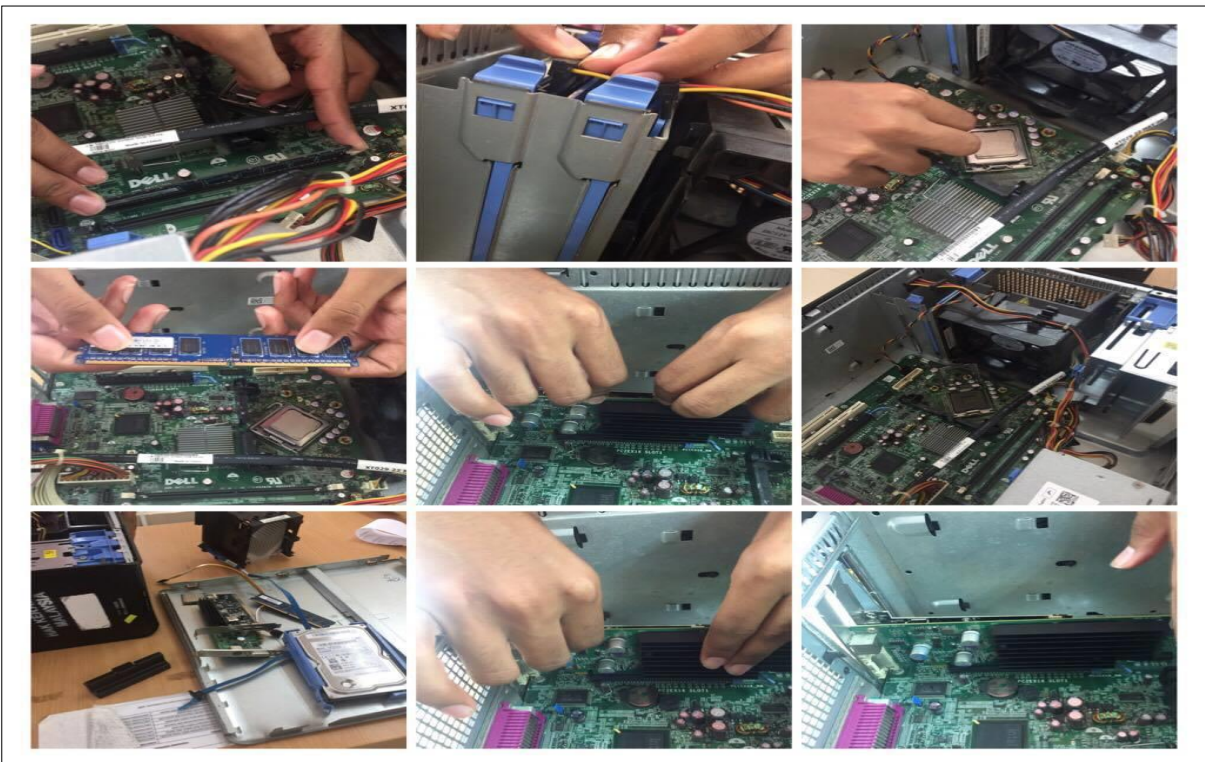
### **Steps to disassemble a system unit:**

1. Prepare the tools and materials.
2. Before opening the system unit, turn off the computer and unplug the AVR.
3. Remove all the cables or connectors from the system unit back panel.
4. Wear anti-static wrist strap and other PPE.
5. Remove the screws of the side cover opposite where the ports are located, then turn the system unit side down where the opened side of the system unit facing upward.
6. Remove the components inside the system unit, according to the layout of the system case.
  - a) Data cables (PATA/SATA)
  - b) Power cables (24 pins, 4pins)
  - c) Power supply unit
  - d) Memory (RAM)
  - e) Optical disk drive
  - f) Floppy disk drive
  - g) Hard disk drive
  - h) Expansion cards
  - i) Front panel connectors
  - j) Heat sink
  - k) Processor (CPU)
  - l) Motherboard
7. Clean the system case and devices with brush and cloth.



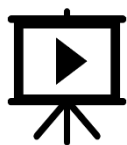


<https://www.amazon.co.uk/Hama-PC-Tool-Kit-Professional/dp/B00005V39V>  
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<https://today.tamu.edu/2009/07/16/personal-protective-equipment-in-the-lab/>  
[https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRGZz839IQcg0hGqm97BQY\\_MB1Hq5EL\\_I\\_RgA&usqp](https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRGZz839IQcg0hGqm97BQY_MB1Hq5EL_I_RgA&usqp)



<http://kmsphoenix100299.blogspot.com/2017/09/task-2-how-to-assemble-and-disassemble.html>





## ACTIVITIES

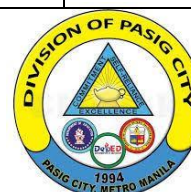
Direction: Arrange the following sequence of steps to disassemble a system unit. Write numbers 1-5 on the blank line.

- \_\_\_\_\_ Before opening the system unit, turn off the computer and unplug the AVR.
- \_\_\_\_\_ Remove the components inside the system unit, according to the layout of the system case.
- \_\_\_\_\_ Prepare the tools and materials.
- \_\_\_\_\_ Remove all the cables or connectors from the system unit back panel.
- \_\_\_\_\_ Wear anti-static wrist strap and other PPE.

### Performance Checklist

Check the following if you've met the criteria:

CRITERIA: Did you...?	YES	NO
1. Prepare the tools and materials?		
2. Turn off the computer and unplug the AVR?		
3. Remove all the cables or connectors from the system unit back panel?		
4. Wear anti-static wrist strap and other PPE?		
5. Remove the components inside the system unit, according to the layout of the system case:		
a. Data cables (PATA/SATA)?		
b. Power cables (24 pins, 4pins)?		
c. Power Supply unit?		
d. RAM (Random Access Memory)?		
e. Optical Drive?		
f. Floppy disk drive?		
g. Hard Disk Drive?		



h. Expansion cards?		
i. Front panel connectors?		
j. Heat sink?		
k. Processor (CPU)?		
l. Motherboard?		
6. Clean the system case and devices with brush and cloth?		



## WRAP-UP

Disassembly of computer is the process of breaking down a device into separate parts. A device may be disassembled to help determine a problem, to replace a part, or take the parts and use them in another device or sell them individually. For example, if a computer has a bad processor, you may need to open the computer case, disassemble the heat sink and processor, and manually replace it.



## VALUING

**Direction:** Read and answer the following questions carefully in two to three sentences each number.

1. What are the importance of disassembling a computer?

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2. Cite a situation in which you can apply the knowledge of disassembling a computer.

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## POST-TEST

Direction: Fill-in the blanks of the steps to disassemble a system unit. Choose the answer from the box.

System unit	Components	PPE	Computer	Cables	Tools
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1. Prepare the \_\_\_\_\_ and materials.
2. Before opening the \_\_\_\_\_, turn off the computer and unplug the AVR.
3. Remove all the \_\_\_\_\_ or connectors from the system unit back panel.
4. Wear anti-static wrist strap and other \_\_\_\_\_.
5. Remove the \_\_\_\_\_ inside the system unit, according to the layout of the system case.



## KEY TO CORRECTION

Post-Test:	1. Tools	2. System unit	3. Cables	4. PPE	5. Components
Pre-Test:	1. C	2. A	3. D	4. C	5. C
Recap:	1. T	2. T	3. T	4. F	5. T
Activity:	1. 2	2. 5	3. 1	4. 3	5. 4



# References

<https://www.e-tesda.gov.ph/mod/book/view.php?id=1118&chapterid=1844>

<https://www.computerhope.com/jargon/d/disassem.html>

