

# Department of Education **SPTVE**

## **COMPUTER SYSTEMS SERVICING (CSS) 8** **Work Order, Standard Operating Procedure** **and Fault Identification** **Quarter 2: Week 2 Module**



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## EXPECTATIONS

At the end of the module, the learners are expected to:

1. identify the proper procedure on how to choose the right material for work;
2. enumerate and perform different fault identification and remedy for computer related problems; and
3. value the importance of following the procedure and guidelines in acquiring materials in the workplace and the different ways or remedies on how to solve computer problems.



## PRE-TEST

Directions: Write the letter of the correct answer on a separate sheet of paper.

1. Which of the following should be considered when buying or selecting materials for a specific project that is mainly on the amount of the materials?  
A. cost of material  
B. quantity of material  
C. selection of material  
D. testing material
2. It is the most common tasks for design engineering that has the ability to assess the materials' performance?  
A. cost of material  
B. quantity of material  
C. selection of material  
D. testing material
3. Which of the following is widely understood to be the key in obtaining data for a project, performing failure analysis, or understanding material interactions?  
A. cost of material  
B. quantity of material  
C. selection of material  
D. testing material
4. What is the process of gathering information from the client about the component he wants to be fixed by the technician?  
A. estimate time proper  
B. estimate cost of material  
C. specific fault identification  
D. information gathering to workers/users
5. Which of the following is **NOT** a part in identifying the safe working procedure in a workplace?  
A. designing new task  
B. PPE to be worn.  
C. training needed to undertake the task  
D. teacher and student to undertake the task
6. What is the most important factor when choosing materials to buy?  
A. good quality  
B. low cost  
C. reliable  
D. suitable for application/purpose
7. Which of the following is **NOT** the diagnostic tools that are used in fault identification in PC?  
A. estimate time proper  
B. operating system tools  
C. physical devices  
D. software applications

8. What is this factor that means you can afford to buy the materials without hurting your pocket and assure of better quality?  
 A. good quality C. reliable  
 B. low cost D. suitable for application/purpose
9. Which of the following means basic or most evident problems encountered in using computer?  
 A. basic faults B. comon faults C. common faults D. core faults
10. All of the following are work behaviour that resulted in bad performance, **EXCEPT**?  
 A. absenteeism B. eating C. good scheduling D. tardiness



### LOOKING BACK

Directions: Copy the table and encircle 10 words related to the last topic which are wires, cables, and electronic components on a separate sheet of paper.

### Word Hunt

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



### BRIEF INTRODUCTION

## Work Order, Standard Operating Procedures and Fault Identification

### Work Order and Standard Operating Procedure

A set of step-by-step instructions compiled by an organization to help workers carry out complex routine operations and help fix the problems immediately by applying different remedies.

These are the factors that must be taken into consideration when choosing the right material for their components and assemblies:

- 1. Selection of Material.** Material selection is one of the most common tasks for design engineering. The ability to assess the material's impact on the performance of a product is crucial for reliable performance. Sometimes, buyers are also considering the label or name of the company which are producing great quality of materials and are known in the market. *Examples are the name HP for printer and Intel for some computer hardware.*
- 2. Testing of Material.** The testing of material properties is widely understood to be the key to obtaining data for a project, performing failure analysis, or understanding material interactions. Material testing also provides information on the quality of incoming and outgoing products.
- 3. Cost of material.** The cost of material is also considered when buying or selecting materials for a specific project. The amount may vary but never taken for granted the quality and the reliability of the material. Will you buy material which is less expensive but worst quality? Will you buy material which you cannot afford? People look for places which can meet their standards and right cost for materials to buy.

Before planning and designing takes place, you should evaluate the material options and system requirements. The characteristic of the materials to be used for specific project must be:

- **Good quality:** This is the most important factor when choosing materials to buy. Products with good quality are long-lasting and safe to use because you know that it follows certain standards before being commercialized.
- **Reliable:** It means that you can be sure that it will perform its function well, will operate safely and will give the best it could give.
- **Suitable for the application/purposes:** Choose the materials which are very necessary to make the project possible. Making a list of products/materials to buy is a good trait of a wise consumer. Products which are not to be used must be crossed out.
- **Low cost:** It doesn't mean that you will choose for the less expensive one and exclude the quality. Low cost means you can afford to buy the materials without hurting your pocket and assure of better quality.

## Workplace Procedure

Workplace Procedure is a set of written instructions that identifies the health and safety issues that may arise from the jobs and tasks that make up a system of work.

A safe working procedure should be written when:

- ✓ designing a new job or task
- ✓ changing a job or task
- ✓ introducing new equipment

- ✓ reviewing a procedure when problems have been identified, example from an accident or incident investigation

The safe working procedure should identify:

- ✓ the teacher for the task or job and the students who will undertake the task
- ✓ the tasks that are to be undertaken that possess risks
- ✓ the equipment to be used in these tasks
- ✓ the control measures that have been formulated for these tasks
- ✓ any training or qualification needed to undertake the task
- ✓ the personal protective equipment to be worn
- ✓ action to be undertaken to address safety issues that may arise while undertaking the task

### **Types of Work-Related Errors**

#### **A. Quantity of work (untimely completion, limited production)**

1. Poor prioritizing, timing, scheduling
2. Lost time
3. Tardiness, absenteeism, leaving without permission
4. Slow response to work requests, untimely completion of assignments
5. Preventable accidents

#### **B. Quality of work (failure to meet quality standards)**

1. Inaccuracies, errors
2. Failure to meet expectations for product quality, cost or service
3. Customer/client dissatisfaction
4. Spoilage and/or waste of materials
5. Inappropriate or poor work methods

#### **Work Behavior Which Results in Performance Problems:**

- A.** Inappropriate behavior (often referred to as "poor attitude")  
***Example:** Negativism, lack of cooperation*
- B.** Resistance to change  
***Example:** Unwillingness, refusal or inability to update skills*
- C.** Inappropriate interpersonal relations  
***Example:** over-aggressive, passive, impatient, inconsiderate, argumentative*
- D.** Inappropriate physical behavior  
***Example:** Smoking, eating, drinking in inappropriate places, sleeping on the job*

### **Fault Identification**

- **Understand the procedures used in the IT diagnostics process.** This are the procedures you need to follow or undertake when looking for faults/problems in the workplace.

**Procedures:** fault validation, information gathering, information analysis, solution identification

**Diagnostic process:**

- ✓ Information gathering to workers/users
  - ✓ Specific fault identification like flowcharts
  - ✓ Fault validation
  - ✓ Estimate time repair
  - ✓ Estimate cost of materials to be used and labor
- **Be able to identify the cause of common faults.** Common faults means basic or most evident problems encountered in using computer. Being a technician you should be able to identify it easily.

**Types of fault:** Hardware (component failure, peripheral), software (virus, driver fault, out-of-date version), compatibility issues

**Diagnostic tools:**

- ✓ Physical devices
  - ✓ Software applications
  - ✓ Operating system tools
- **Be able to apply suitable remedies to identified faults.** After finding the fault, as a technician you should be able to think of different possible ways/remedies to fix the fault. You should also keep a record of information regarding the problem for future use.

**Fault remedies:** Identification of suitable remedy example repair, replace component, upgrade software.

**Diagnostic information:**

- ✓ Record of work content (date, name of person, location fault, location of device, error code, problem detail, parts used, etc.)
- ✓ Record of work (log or diary)



**ACTIVITIES**

**Activity 1**

Directions: Write **QN** if the statement affects the quantity of work and **QL** if the statement affects the quality of work. Write your answer on a separate sheet of paper.

- \_\_\_\_\_ 1. Poor scheduling of work
- \_\_\_\_\_ 2. Failure to meet expectations for product quality, cost or service
- \_\_\_\_\_ 3. Customer/client dissatisfaction
- \_\_\_\_\_ 4. Preventable accidents
- \_\_\_\_\_ 5. Leaving without permission
- \_\_\_\_\_ 6. Tardiness
- \_\_\_\_\_ 7. Slow response to work requests

- \_\_\_\_\_ 8. Smoking
- \_\_\_\_\_ 9. Impatient
- \_\_\_\_\_ 10. Spoilage and/or waste of materials

## Activity 2

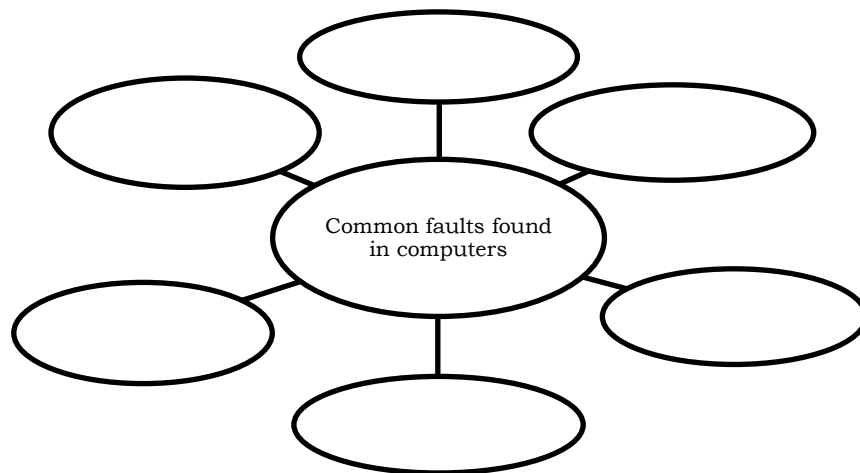
### Set A.

Directions: Arrange the following in order based from fault identification procedures. Use numbers starting from 1 up to 5 and write your answer on a separate sheet of paper.

- \_\_\_\_\_ Record the information gathered before, during and after fixing the fault.
- \_\_\_\_\_ Talk to the user of the computer to know the problem.
- \_\_\_\_\_ Estimate the time it will take to fix the problem and the amount it will cost for the materials and labor.
- \_\_\_\_\_ Fix the fault or problem.
- \_\_\_\_\_ Identify the fault of the computer.

### Set B.

Directions: Supply the diagram below with the appropriate fault identification procedures common faults based from the lesson. Copy and answer the diagram on a separate sheet of paper.



### REMEMBER

Directions: Based from your understanding about the lesson, answer the following guide questions briefly on a separate sheet of paper.

**Guide questions:**

1. What are the factors that must be taken into consideration when choosing the right material for their components and assemblies? Explain each.
2. When you encounter a problem in your PC or gadget what is the first thing you should do?
3. Why do you think it is important to take down notes about the problems you have encountered and the way you fixed it?



**CHECK YOUR  
UNDERSTANDING**

**Activity 1 “ Ask Me”**

Directions: Interview your parent, guardian or any of your relative; ask the following questions to them then write their answer in a separate sheet of paper.

- A. When buying products or services what do you look for?
- B. For instance, when buying construction materials or tools what do you consider? Quality, cost, etc. and why?

***This question is for you:***

- C. After learning the different factors in choosing the right material for a job, what do you think will help you most when purchasing things like gadgets, tools and equipment? Explain your answer briefly.
- D. In your own understanding, what is workplace procedure?

**Activity 2 “Solve My Problem”**

Directions: Read and analyze the scenarios then suggest remedies in order to fix the problem. Write your answer on a separate sheet of paper.

***Ana was using her computer for almost 6 hours straight without taking a break, it happens in a hot weather and with that her computer overheats. What do you think is the cause of the problem and how will you solve this?***



**POST TEST**

Directions: Write the letter of the correct answer on a separate sheet of paper.

1. Which of the following procedures in acquiring goods or products that means you can be sure that it will perform its function well, will operate safely and will give the best it could give?
  - A. cost of material
  - B. good quality
  - C. reliable
  - D. testing of material



2. What characteristic of product or goods that is long-lasting and safe to use because you know that it follows certain standards before being commercialized?
  - A. good quality
  - B. low cost
  - C. reliable
  - D. selection of material
3. In evaluating material before purchasing it, you should afford to buy the materials without hurting your pocket and assure of better quality. What characteristic is this?
  - A. good quality
  - B. low cost
  - C. reliable
  - D. selection of material
4. Which factor should you consider before buying any goods or product that focuses on the amount/cost?
  - A. cost of material
  - B. good quality
  - C. reliable
  - D. testing of material
5. All of the following are procedures in obtaining a product, which of these is about performing failure analysis or understanding material interactions?
  - A. cost of material
  - B. good quality
  - C. reliable
  - D. testing of material
6. Troy wanted to buy a new HP printer for his school work, he chose this brand because of its *good quality and performance*. What factor does he consider when choosing his printer?
  - A. cost of material
  - B. selection of material
  - C. suitable purpose
  - D. testing of material
7. Shay went to the mall and canvas for a new Lenovo laptop. She went from store to store to compare the *prices of the same brand and specifications*. What factor does she consider before buying a new laptop?
  - A. cost of material
  - B. selection of material
  - C. suitable purpose
  - D. testing of material
8. Lauren went to buy a new set of speakers for their entertainment room. Before paying the speakers, she asks the store personnel to *test first the speakers to check if it works properly and there is nothing wrong*. What factor does she consider before buying the speaker?
  - A. cost of material
  - B. selection of material
  - C. suitable purpose
  - D. testing of material
9. One of the employees in your company is always late to work. Because of this it affects his performance. What do you think is the type of work-related error his showing?
  - A. fault identification
  - B. inaccuracy of work
  - C. quality of work
  - D. quantity of work
10. Which of the following will you use in fixing a laptop that has a problem with Microsoft Office application?
  - A. hardware
  - B. operating system tools
  - C. physical devices
  - D. software applications

## Answer Key

Post-Test: 1. C, 2. A, 3. B, 4. A, 5. D, 6. B, 7. A, 8. D, 9. C, 10. D	Looking Back:																																																																																																				
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