Introduction to Basic Computer Systems Servicing Homework Sheet

Student Name: _____

Class: _____

Due Date: _____

Introduction and Objectives

Welcome to the Introduction to Basic Computer Systems Servicing homework sheet! This worksheet is designed to help you understand the basics of computer hardware and troubleshooting. By the end of this worksheet, you will be able to:

- Identify and describe the primary components of a computer system
- Explain the function of each component and how they work together
- Apply basic troubleshooting techniques to common computer issues

Computer Hardware Components

Match the following computer hardware components with their descriptions:

1. CPU (Central Processing Unit)
2. Motherboard
3. RAM (Random Access Memory)
4. Hard Drive
5. Power Supply

A) The brain of the computer, responsible for executing instructions and handling calculations

B) The main circuit board of the computer, connecting all hardware components together

C) Temporary storage for data the computer is currently using

D) Permanent storage for the computer's operating system, programs, and data

E) The component that provides power to all parts of the computer

Troubleshooting Scenarios

Read the following scenarios and answer the questions:

Scenario 1: A computer won't turn on.

What are the possible causes of this issue? (Check all that apply)

- Faulty power supply
- Loose connections
- Dead battery (if it's a laptop)
- Other (please specify)

Scenario 2: A computer is running slowly.

What are the possible causes of this issue? (Check all that apply)

- Insufficient RAM
- Malware or viruses
- Too many programs running at the same time
- Other (please specify)

Computer Systems Servicing Quiz

Take the following quiz to test your understanding of computer systems servicing:

1. What is the primary function of the CPU?
    - a) To store data
    - b) To provide power to the computer
    - c) To execute instructions and handle calculations
    - d) To connect hardware components together

2. What is the difference between RAM and ROM?
    - a) RAM is permanent storage, while ROM is temporary storage
    - b) RAM is temporary storage, while ROM is permanent storage
    - c) RAM is used for input, while ROM is used for output
    - d) RAM is used for output, while ROM is used for input

Design a Computer System

Design a computer system for a specific purpose (e.g. gaming, video editing, general use). Include the following components:

- CPU
- Motherboard
- RAM
- Hard Drive
- Power Supply
- Graphics Card (if necessary)

Explain why you chose each component and how they will work together to meet the needs of the intended use.

Troubleshooting Guide

Create a troubleshooting guide for a common computer issue (e.g. a computer that won't connect to the internet). Include the following:

- Symptoms of the issue
- Possible causes of the issue
- Steps to troubleshoot the issue
- Solutions to the issue

Computer Maintenance

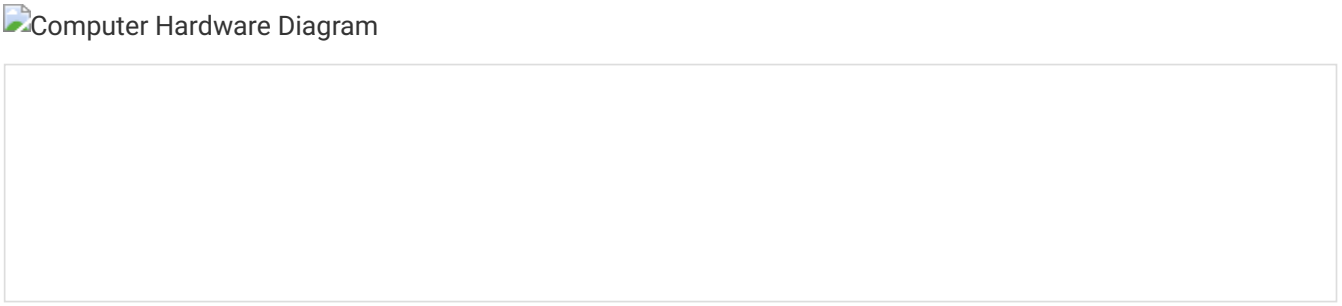
Explain the importance of regular computer maintenance, including:

- Updating software
- Cleaning dust from hardware
- Running disk cleanups

How often should these tasks be performed, and why are they important?

Computer Hardware Diagram

Label the following diagram with the correct computer hardware components:



Case Study

Read the following case study and answer the questions:

A user's computer is not turning on. They have tried pressing the power button, but nothing happens. What are the possible causes of this issue? How would you troubleshoot this issue?

Conclusion

Congratulations on completing the Introduction to Basic Computer Systems Servicing homework sheet! Reflect on what you have learned and how you can apply it to real-world scenarios. What do you think is the most important concept you learned, and why?