System Overview

MODULE TEST

You may wish to review the exercises or audio-visual material before taking this module test. Once you begin the test, do not refer to the course materials.

There are eight questions.

1. Four items in the list below comprise the *basic functions* of a computer. Next to each item write a T if the item is a basic computer function. Write an F if it is not one of the four basic computer functions.

Function	**T or F**
Control	____
Schedule	____
Store	____
Calculate	____
Input	____
Process	____
Sequence	____
Output	____

2. Listed below are seven applications and advantages of computers. Next to each application, write the letter of the advantage that corresponds to the application.

Application	Advantage
Business	_____
Recreation	_____
Science	_____
Education	_____
Simulation	_____
Mechanical Control	_____
Engineering	_____

Advantages

a. Allows experiments to be conducted that are too expensive, too dangerous, or too difficult to control in real environments.

b. Allows researchers to develop complex mathematical models to explain physical and sociological phenomena by providing a means for validating these models through successive calculations.

c. Functions as a unique tool to present instruction by adapting to the needs of individual students.

d. Can control complex mechanical systems with intricate interaction and feedback between parts.

e. Performs complex calculations and data analyses.

f. Speeds up accounting and allows for work with a large number of accounts while maintaining up-to-date information on operations.

g. Provides a unique instrument for playing games with intricate rules, strategies, and computations.

3. Listed below are 12 characteristics of computers. Write A or D next to each to indicate whether it applies to an analog or a digital computer.

Characteristic	Analog or Digital
Makes use of a patch panel.	_____
Controlled by stored programs.	_____
Represents data by electrical voltages.	_____
Works with data that changes in a smooth, continuous manner.	_____
Can only store small quantities of data.	_____
Easy to reprogram.	_____
Calculates by counting digits.	_____
Limited in precision.	_____
Able to store large amounts of data.	_____
Data presented by discrete units, 0 and 1, or ON and OFF.	_____
Able to work with great precision.	_____
Combines voltages in order to perform arithmetic.	_____

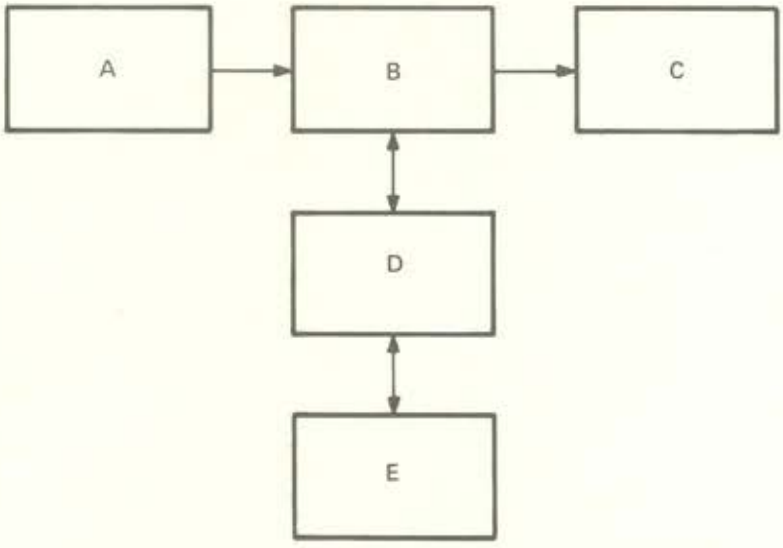
4. Examples of analog and digital devices are listed below. Write an A or D next to each to indicate whether it is an analog or a digital device.

Device	Analog or Digital
Odometer	_____
Tachometer	_____
Barometer	_____
Taximeter	_____
Traffic Light	_____
Radio Tuner	_____
Depth Gauge	_____

5. Indicate that each of the following characteristics describes a dedicated (D), a special-purpose (S), or a general-purpose (G) computer by writing the correct letter in the blank space.

Characteristic	Type of Computer
Designed to solve a closely related group of tasks.	_____
Built for one specific function	_____
Most economical.	_____
The most versatile type of computer.	_____
Extremely efficient.	_____
The computer with about medium speed.	_____
Capable of performing whatever tasks it can be programmed to do.	_____

6. Below is a simple block diagram of a computer system, and a list of the major units that comprise the computer system. Next to the name of each unit, write the letter that corresponds to the unit's position in the diagram.



Unit	Position in Diagram
Main Memory	_____
Output	_____
Auxiliary Storage	_____
Input	_____
Central Processor	_____

7. Listed below are the five major units of a computer system. In the blank spaces, write a T if the unit is part of the computer mainframe. Write an F if the unit is not part of the computer mainframe.

Unit	Part of Mainframe
Main Memory	_____
Output	_____
Auxiliary Storage	_____
Input	_____
Central Processor	_____

8. Indicate whether each of the items below is part of a computer's hardware (H) or software (S).

Item	H or S
Auxiliary Storage	_____
Input Unit	_____
Program	_____
Central Processor	_____
Instruction	_____

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Unit	Part of Mainframe
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