# Unit#1: The Data-Processing Data

## A. Fill in the blanks.

**1.** Data collection **2.** information **3**. criteria **4**. Spreadsheets

**5.** decisions **6**. Computers **7**. programmed

## B. State whether the following statements are true or false.

**1.** True. **2**. True. **3**. False. **4**. False. **5**. True.

## C. Select the correct option for each question.

**1**. d **2**. b **3.** c **4**. c **5**. C

## D. Answer the following questions.

### 1. Describe the data-processing cycle with the help of a diagram.

The data-processing cycle describes how data is processed into information by the computer. The input stage is the first stage of the data-processing cycle. Data is collected and entered into the computer. In the processing stage, the computer converts data into information according to given instructions. After processing, the information is presented to users in the output stage. Information is stored on different types of media in the storage stage. The stored information can be used later for a different data processing cycle. In this way, the data-processing cycle continues.

***Note: See Diagram on Pg. # 3.***

### 2. What is the difference between encoding and decoding?

**A: Encoding:**

Encoding is the conversion of data into a form that makes it easier for users to enter it into the computer. It takes place at the input stage. For example, the name of a person can be encoded as JS instead of John Smith.

**B: Decoding:**

Decoding is the conversion of information into a form that makes it easier for users to read and understand. It occurs at the output stage. The initials JS can be decoded as John Smith and displayed on the screen.

**3. Describe three forms in which data can be processed.**

Data can be processed in different ways. Three ways of processing data are sorting, grouping, and calculating. In sorting, data is arranged in a specified order. Data can be arranged in alphabetical, ascending, or descending order. In grouping, similar data items are arranged in groups. This makes it easy to locate data. In calculations, we can add, subtract, multiply, and divide data. We can use it to create graphs and charts.

**4. What is a computerized system? Explain with an example.**

A computerized system uses computers to perform a set of tasks. There is little need for human involvement. This results in greater speed and accuracy. A computerized attendance system in an office consists of a fingerprint reader and a computer. Employees place their fingers on the reader and their attendance is marked automatically on the computer. They do not need to sign on a register.

**5. What is information technology?**

Information technology is the use of a variety of processing devices and methods to process data into information. It usually consists of a set of manual and computerized systems for doing work. Information technology involves the use of computers and machines to do jobs that used to be done by humans.

**6. Describe three advantages of a computerized system over a manual system.**

A computerized system has several advantages over a manual system:
1. A computerized system processes data faster than a manual system.
2. A computerized system makes fewer errors than a manual system.
3. A computerized system processes more data than a manual system.

**7. Why is a computerized system not effective in all situations?**

A computerized system is not effective in all situations because it cannot work in situations for which it has not been programmed. It cannot learn new things without the help of a programmer. It is also not suitable for situations where human feelings and emotions are involved.

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