

**Computer Science or Information Technology**

Instructor: Dr. Dawei Li

Day, Month, Year

Day

CSIT 501

Department of CSIT

Assessment

Module-1

Hidalgo, Rafael

Exercise 1.2

Why are magnetic devices considered as effective means of representing the binary values?

A magnetized area represents a binary 1 and a demagnetized area represents a binary 0. Thus magnetic devices can store binary information this way.

Exercise 1.3

How many bits are required to uniquely represent each of the following?

a. 4 items = 2 bits

b. 16 items = 4 bits

c. 32 items = 5 bits

d. 128 items = 7 bits

e. 512 items = 9 bits

f. 2048 item = 11 bits

Exercise 1.4

assuming there are 366 days in a year, how many bits would be needed to store each day of the year? Why?

9 bits are needed because 9 bits can hold up to 2^9 items which equals to 512 items. Whereas 8 bits can only hold up uo 2^8 items, which equals to 255 items

Exercise 1.5

If all rainbow colors are to be represented by a unique bit pattern, how many bits would be needed to store each color? Why?

There are seven colors within a rainbow. It would take 3 bits to store them all because up to 8 colors can fit in 3 bits.

Exercise 1.6

What is the usage of each of the following elements in a Graphical User Interface (GUI)?

a. windows: This is used to sperate the screen into different work areas.

b. icons : These are small images that represent computer resources.

c. buttons : This provides users with selectable options.

d. sliders: This allows users to select from a range of values.

Exercise 1.10

What is the significance of a Domain Name System (DNS) in the Internet? What would happen without a DNS?

DNS acts like a phone book where you provide a name or website, and the domain server then gives you back a number, or IP address.

Exercise 1.12

Explain the difference between a web browser and a web server.

A web browser is a software tool that loads and formats web documents for viewing. A web server is a computer that provides access to Web documents. Browsers load and interpret documents provided by a Web server.

Exercise 1.14

Give examples of the three categories of Java identifiers and explain the differences between them.

Words that we make up while writing a program can be an identifier. This can include variables.

Words that another programmer chose are an identifier. Another programmer chose these and incorporated them into Java standard library of predefined code. An example of this is String.

Finally reserved words are identifiers that have a special meaning in Java and can only be used in predefined ways. An example of a reserved identifier is class.