

13) What is a programming bug?

It is an error in the code.

14) What is a **program**?

Sequence of instructions that a computer can execute

15) Give examples of two Input/Output devices used in computers?

Input → Keyboard

Output → Monitor

16) What is the name of the communication protocol used in Internet?

TCP/IP

17) Write the **entire** HTML file to produce a Web page that includes the following elements:

- The **background color** of the page should be green.
- The **title** of the page should be "My Dream Garden"
- The **heading** on the page should say "Jane's Dream Garden" (use your own name!)
- Write a (short) paragraph about your dream garden.
- **List** (using numbers, not bullets) 3-4 features that you would like to have in your garden.
- Include a picture of a flower. The picture is stored in a file called `flower.gif`
- Include a link to <http://www.gardens.com>

```
<html >
```

```
<head >
```

```
<title > My Dream Garden </title >
```

```
</head >
```

```
<body > my dream garden will have all kinds of flowers. <br />
```

```
It will be really colorful and sunny <br />
```

```
<ol >
```

```
<li > Roses </li >
```

```
<li > Daisies </li >
```

```
<li > Trees </li >
```

```
</ol >
```

```
<img src = "flower.gif" />
```

```
<a href = "http://www.gardensrus.com" > Gardens R us! </a >
```

```
</body >
```

```
</html >
```

6) Describe what an Interpreter is and a Compiler is and how they work.

Compiler → converts source code of a program to machine language.
 interpreter → reads instructions in a language & decodes them one at a time.

7) What is an algorithm? What is used for?

Set of rules specifying how to solve a problem. It is used for solving problems.

8) What are the basic parts of a computer according to Von Neumann Architecture?

memory, CPU, Input/output

9) How many bits is a byte?

8

10) Fill in the gaps in the table below.

Binary	Decimal
10010	18
1011	11

$$\begin{array}{r}
 16 \ 8 \ 4 \ 2 \ 1 \\
 \downarrow \downarrow \downarrow \downarrow \downarrow \\
 1 \ 0 \ 0 \ 1 \ 0 \\
 \hline
 16 + 0 + 0 + 2 + 0 = 18
 \end{array}$$

$$\begin{array}{r}
 8 \ 4 \ 2 \ 1 \\
 1 \ 0 \ 1 \ 1 \\
 \downarrow \downarrow \downarrow \downarrow \\
 8 + 0 + 2 + 1 = 11
 \end{array}$$

11) What is the difference between **Machine languages** and **High Level Programming languages**?

machine language → binary form of instructions that a computer can run.

high level language → a programming language with strong abstraction from the details of the computer.

12) What is a data type? Give two examples.

a data type → a classification identifying one of various types of data. e.g. integer, Boolean

Instructor: Dogan

Core 1312 Fall 2010
EXAM 1

Questions 1-16 (except Question 10) are worth 5 points each.
Question 10 is worth 10 points and Question 17 is worth 15 points.

Important notice: You can answer all questions using your own words.

1) What is the difference between a search engine and a subject directory?

- 1) Subject directory are lists of websites organized according to subject matter.
2) Search engine is a database of websites that a user searches for a particular topic.

2) Explain using your own words what is an ASCII table?

ASCII table has ASCII codes that represent text in computers. It is a character-encoding scheme based on the ordering of the English alphabet.

3) What is the difference between a URL and a IP address? Give an example of each.

URL → address of a web page e.g. <http://www.google.com>

IP address → a unique number which identifies a computer connected to Internet. e.g. 212.46.230.229

4) What is Hardware and what is Software? Give two examples.

hardware → physical components of a computer e.g: keyboard

software → digitally stored data such as computer programs.

e.g. Office Software

5) What is the difference between a LAN and a WAN? Explain both using your own words.

LAN is a local area network.

WAN is a wide area network.

A WAN connect multiple LANs or individual computers located in different geographic areas WHEREAS

LAN is a network covering a small area such as an office.