

Homework 1

Introduction to Computers and Programming

TRUE/FALSE

1. A software developer is the person with the training to design, create, and test computer programs.

ANS:

2. A computer is a single device that performs different types of tasks for its users.

ANS:

3. All programs are normally stored in ROM and are loaded into RAM as needed for processing.

ANS:

4. The instruction set for a microprocessor is unique and is typically understood only by the microprocessors of the same brand.

ANS:

5. The CPU understands instructions written in a binary machine language.

ANS:

6. A bit that is turned off is represented by the value **-1**.

ANS:

7. The main reason to use secondary storage is to hold data for long periods of time, even when the power supply to the computer is turned off.

ANS:

8. RAM is a volatile memory used for temporary storage while a program is running.

ANS:

9. The Python language uses a compiler which is a program that both translates and executes the instructions in a high-level language.

ANS:

10. IDLE is an alternative method to using a text editor to write, execute, and test a Python program.

ANS:

MULTIPLE CHOICE

1. Programs are commonly referred to as
 - a. system software
 - b. software
 - c. application software
 - d. utility programs

ANS:

2. Which of the following is considered to be the world's first programmable electronic computer?
 - a. IBM
 - b. Dell
 - c. ENIAC
 - d. Gateway

ANS:

3. Where does a computer store a program and the data that the program is working with while the program is running?
 - a. in main memory
 - b. in the CPU
 - c. in secondary storage
 - d. in the microprocessor

ANS:

4. What type of volatile memory is usually used only for temporary storage while running a program?
 - a. ROM
 - b. TMM
 - c. RAM
 - d. TVM

ANS:

5. Modern CPUs are much _____ than the CPUs of early computers.
 - a. larger and more powerful
 - b. smaller and more powerful
 - c. less powerful
 - d. slower

ANS:

6. Which computer language uses short words known as mnemonics for writing programs?
 - a. Assembly
 - b. Java
 - c. Pascal
 - d. Visual Basic

ANS:

7. The process known as the _____ cycle is used by the CPU to execute instructions in a program.
- decode-fetch-execute
 - decode-execute-fetch
 - fetch-decode-execute
 - fetch-execute-decode

ANS:

8. Which language is referred to as a low-level language?
- C++
 - Assembly language
 - Java
 - Python

ANS:

9. The following is an example of an instruction written in which computer language?

10110000

- Assembly language
- Java
- machine language
- C#

ANS:

10. The encoding technique used to store negative numbers in the computer's memory is called
- Unicode
 - ASCII
 - floating-point notation
 - two's complement

ANS:

11. The _____ coding scheme contains a set of 128 numeric codes that are used to represent characters in the computer's memory.
- Unicode
 - ASCII
 - ENIAC
 - two's complement

ANS:

12. The smallest storage location in a computer's memory is known as a
- byte
 - ketter
 - switch
 - bit

ANS:

13. What is the largest value that can be stored in one byte?
- 255**

- b. **128**
- c. **8**
- d. **65535**

ANS:

14. The disk drive is a secondary storage device that stores data by _____ encoding it onto a spinning circular disk.
- a. electrically
 - b. magnetically
 - c. digitally
 - d. optically

ANS:

15. A _____ has no moving parts and operates faster than a traditional disk drive.
- a. DVD drive
 - b. solid state drive
 - c. jumper drive
 - d. hyper drive

ANS:

16. Which of the following is not a major component of a typical computer system?
- a. the CPU
 - b. main memory
 - c. the operating system
 - d. secondary storage devices

ANS:

17. Which type of error prevents the program from running?
- a. syntax
 - b. human
 - c. grammatical
 - d. logical

ANS:

18. What is the decimal value of the following binary number?

10011101

- a. **157**
- b. **8**
- c. **156**
- d. **28**

ANS:

MULTIPLE RESPONSE

1. Select all that apply. To create a Python program you can use
- a. a text editor

- b. a word processor if you save your file as a .docx
- c. IDLE
- d. Excel

ANS:

COMPLETION

1. A(n) _____ is a set of instructions that a computer follows to perform a task.

ANS:

2. The term _____ refers to all the physical devices that make up a computer.

ANS:

3. The _____ is the part of the computer that actually runs programs and is the most important component in a computer.

ANS:

4. A disk drive stores data by _____ encoding it onto a circular disk.

ANS:

5. _____ are small central processing unit chips.

ANS:

6. _____ is a type of memory that can hold data for long periods of time, even when there is no power to the computer.

ANS:

7. Main memory is commonly known as _____.

ANS:

8. USB drives store data using _____ memory.

ANS:

9. The Python _____ is a program that can read Python programming statements and execute them.

ANS:

10. In _____ mode, the interpreter reads the contents of a file that contains Python statements and executes each statement.

ANS: