**Starting Out with Python 5e (Gaddis)**

**Chapter 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: T

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

ANS: F

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

ANS: F

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

ANS: T

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

ANS: T

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

ANS: F

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: T

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

ANS: T

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

ANS: F

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

ANS: T

**MULTIPLE CHOICE**

1. Programs are commonly referred to as

|  |  |
| --- | --- |
| a. | system software |
| b. | software |
| c. | application software |
| d. | utility programs |

ANS: B

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: C

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: A

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: C

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: B

6. Which computer language uses short words known as mnemonics for writing programs?

|  |  |
| --- | --- |
| a. | Assembly |
| b. | Java |
| c. | Pascal |
| d. | Visual Basic |

ANS: A

7. The process known as the \_\_\_\_\_\_\_\_\_\_ cycle is used by the CPU to execute instructions in a program.

|  |  |
| --- | --- |
| a. | decode-fetch-execute |
| b. | decode-execute-fetch |
| c. | fetch-decode-execute |
| d. | fetch-execute-decode |

ANS: C

8. Which language is referred to as a low-level language?

|  |  |
| --- | --- |
| a. | C++ |
| b. | Assembly language |
| c. | Java |
| d. | Python |

ANS: B

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

**10110000**

|  |  |
| --- | --- |
| a. | Assembly language |
| b. | Java |
| c. | machine language |
| d. | C# |

ANS: C

10. The encoding technique used to store negative numbers in the computer's memory is called

|  |  |
| --- | --- |
| a. | Unicode |
| b. | ASCII |
| c. | floating-point notation |
| d. | two's complement |

ANS: D

11. The \_\_\_\_\_\_\_\_\_\_ coding scheme contains a set of 128 numeric codes that are used to represent characters in the computer's memory.

|  |  |
| --- | --- |
| a. | Unicode |
| b. | ASCII |
| c. | ENIAC |
| d. | two's complement |

ANS: B

12. The smallest storage location in a computer's memory is known as a

|  |  |
| --- | --- |
| a. | byte |
| b. | ketter |
| c. | switch |
| d. | bit |

ANS: D

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

|  |  |
| --- | --- |
| a. | **255** |
| b. | **128** |
| c. | **8** |
| d. | **65535** |

ANS: A

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: B

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: B

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: C

17. Which type of error prevents the program from running?

|  |  |
| --- | --- |
| a. | syntax |
| b. | human |
| c. | grammatical |
| d. | logical |

ANS: A

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

**10011101**

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

ANS: C

**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: A, C

**COMPLETION**

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

ANS: program

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

ANS: hardware

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

ANS: central processing unit, CPU

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

ANS: magnetically

5. \_\_\_\_\_\_\_\_\_\_ are small central processing unit chips.

ANS: Microprocessors

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: Secondary storage

7. Main memory is commonly known as \_\_\_\_\_\_\_\_\_\_.

ANS: random-access memory, RAM

8. USB drives store data using \_\_\_\_\_\_\_\_\_\_ memory.

ANS: flash

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

ANS: interpreter

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

ANS: script