Multiple Choice  select the best answer

1- The CPU contains __________.
   a) Input devices and output devices  b) the control unit and the arithmetic/logic unit
   c) Input devices and output devices  d) main memory and storage devices

2- __________ is the process of obtaining a program instruction or data item from memory.
   a) Decoding  b) storing  c) fetching  d) executing

3- Arithmetical operations __________.
   a) Involve matching one data item to another to determine if the first item is greater than, equal to, or less than the other item
   b) Include addition, subtraction, multiplication, and division
   c) Sort data items according to standard, predefined criteria in ascending order or descending order
   d) Use conditions with operators such as AND, OR, and NOT

4- The __________ is the most widely used coding system to represent data.
   a) American Standard Code for Information Interchange (ASCII)
   b) Universal System Code for Data Exchange (USCDE)
   c) Extended Binary Coded Decimal Interchange Code (EBCDIC)
   d) Contracted Unit Coded Hexadecimal Transaction Code (CUCHTC)

5- A __________ is equal to exactly 1,024 bytes, but computer users often round down to 1,000 bytes to make memory and storage definitions easier to identify.
   a) kilobyte (abbreviated KB or K)  b) megabyte (abbreviated MB)
   c) dekabyte (abbreviated DB or D)  d) centi byte (abbreviated CB)

6- Most __________ is volatile; it loses its contents when the power is removed from the computer.
   a) RAM  b) CMOS  c) ROM  d) all of the above

7- The data stored on ROM chips __________ when power to the computer is turned off.
   a) can be modified and is lost  b) can be modified and is not lost
   c) cannot be modified and is lost  d) cannot be modified and is not lost

8- Serial ports usually connect devices that do not require fast data transmission rates, such as all of the following except a
   a) Mouse  b) keyboard  c) printer  d) modem

9- A 32-bit bus can transmit __________ at a time.
   a) 32 bits (16 bytes)  b) 4 bits (32 bytes)
   c) 32 bits (4 bytes)  d) 4 bits (32 bytes)
10- In most computers, the word size is __________ the bus width.
   a) The same as b) greater than
c) less than d) either greater than or less than

11- On _____ , the display often is built into the system unit.
   a) desktop personal computers b) mobile computers and devices
c) notebook computers d) all of the above

12- The _____ is the component of the processor that directs and coordinates most of the
     operations in the computer.
   a) Register b) arithmetic logic unit c) control unit d) machine cycle

13- Each processor core on a multi-core processor generally runs at _____ clock speed than
     a single-core processor.
   a) faster b) the same c) twice the d) a slower

14- The term decoding refers to the process of _____.
   a) Obtaining a program instruction or data item from memory
   b) Translating an instruction into signals a computer can execute
   c) carrying out commands d) writing a result to memory

15- ROM chips, called _____ , contain permanently written data, instructions, or
     information.
   a) Memory cache b) registers c) transistors d) firmware

16. A(n) _____ is a socket on the motherboard that can hold an adapter card.
   a) Expansion slot b) parallel port c) drive bay d) front side bus

**TRUE/FALSE**

Determine whether each of the following statement is True /False. Correct the statement if it is false.

1- A computer chip is a small piece of semi conducting material, usually silicon, on which inte-
   grated circuits are etched.  true

2- The four basic operations in a machine cycle (1)-comparing, (fetching), (2) decoding, (3) ex-
   ecuting, and if necessary (4) pipelining (storing).

3- Processors contain a motherboard control unit and an arithmetic logical unit (ALU).

4- The central processing unit motherboard, sometimes called the system board, is the main
   circuit board of the system unit.
5- **Software information** is data that has been organized or presented in a meaningful fashion.

6- A computer's memory access time directly affects how fast the computer process data. **true**

7- A gigabyte (gb) equals approximately 1 trillion (billion) bytes.

8- Most computers are **analog digital**, which means they recognize only two discrete states: on and off.

9- Most RAM **retains loses** its contents when the power is removed from the computer.

10- Read only memory (ROM) refers to memory chips storing **temporary (permanent)** data and instructions

11- The system unit is a case that contains **mechanical electronic** components of the computer used to process data.

12- Memory cache helps speed the process of the computer because it stores **seldom-frequently** used instructions.

13- A **bus port** is the point at which a peripheral attaches to communicates with the system unit so that the peripheral can send data or receive information from the computer.

14- An **AC adaptor expansion** slot is a socket on the motherboard that can hold an adaptor card.

15- Built into the power supply is a **heater fan** that keeps components of the system unit **warm cool**.

16- The higher the bus clock speed the **slower faster** the transmission of data.

17- The pace of the system clock, called the clock speed, is measured by the number of ticks per **minute second**.
18- Pipelining is the method of speeding up processing.  True

19- On desktop computers, the electronic components and most of the storage devices normally occupy space inside the system unit. True

20- Each byte resides temporarily in a location in memory, having an address. True

**Fill in the spaces in the following**

1- In the binary system each letter of the alphabet, each number and each special character is made up of a unique combination of: [binary digits (bytes)]______.

2- **hardware**_______ is any part of the computer that you can physically touch.

3- The operating system is the most common type of _system software.

4- The CPU and memory are located on the: _processor_______.

5- **memory**-------- is electronic components that store instructions, data, and results of processed data.