1. Match the following.

a) vacuum tube

b) stepped reckoner

c)Micro processor

d)Transistor

e) pascaline

f) IC

2. La primera máquina analítica fue diseñada por Charles Babbage:

a) Verdadero

3. Existen dos tipos de computadoras, las analógicas y las digitales:

a) Verdadero

4. Existen actualmente 10 generaciones de computadoras

b) Falso

5. La Primera generación de computadoras surgió en los años 50 del siglo XX

a) Verdadero

6. La primera generación de computadoras se caracteriza por que eran sumamente

rápidas

b) falso

7. La primer generación de computadoras se caracteriza por trabajar a base de bulbos o tubos de vacío

a) Verdadero

8. La Segunda Generación de computadoras surgió en los años 60 del siglo XX y

trabajaban a base de transistores y tarjetas perforadas

a) Verdadero

9. La tercera generación de computadoras surgió a mediados de los años 60 del siglo XX y trabajaba a base de circuitos integrados en tarjetas de silicio, mejor conocidos como Chip

a) Verdadero

10. La tercera generación de computadoras fueron las primeras computadoras en

conocerse como MINICOMPUTADORAS

b) Falso

11. El almacenamiento durante la Tercera Generación era en cintas magnéticas

a) Verdadero

12. La cuarta generación surgió en los años 70 del siglo XX, trabajaba con microchips, y fue de uso masivo

a) Verdadero

13. El primer mouse integrado apareció en 1981, gracias a la nueva interfaz gráfica que

presentaban los Sistemas Operativos (S.O.)

a) Verdadero

14. La Quinta Generación de computadoras surge en los años 80-90 del siglo XX, además de Sistemas Operativos de Interfaz gráfica, Internet, y dispositivos de almacenamiento cada vez de mayor capacidad

a) Verdadero

15. Actualmente hay quienes consideran que las tablets o smartphone son una nueva

generación de computadoras.

a) Verdadero

16. Señala que ventajas presentaban los ordenadores construidos con transistores frente a los construidos con válvulas de vacío:

a) Ocupaban menos espacio

b) Consumían menos electricidad

17. Rellena los huecos que faltan:

La máquina que inventó el matemático Blaise Pascal recibía el nombre de Pascaline

El ordenador que ayudó a descifrar los mensajes del ejército nazi fue bautizado

como\_\_Bombe

1. What a digital computer is?

Make a block diagram explaining at least 3 fundamental components of a digital

computer.

A digital computer is a machine that processes information using binary digits (bits) and performs arithmetic and logical operations. It is a type of computer that uses digital signals to represent data and instructions. Digital computers are used in a wide range of applications, from personal computers to supercomputers.A block diagram of a digital computer typically includes the following three fundamental components:

Input devices: These devices allow the user to enter data into the computer system. Examples of input devices include keyboards, mice, and touchscreens.

Central Processing Unit (CPU): The CPU is the "brain" of the computer system. It performs arithmetic and logical operations on data and executes instructions. The CPU consists of several components, including the control unit, arithmetic logic unit (ALU), and registers.

Output devices: These devices display or print the results of the processing performed by the CPU. Examples of output devices include monitors, printers, and speakers

2. Relationship between Hardware and Firmware. Give some examples.

Hardware refers to the physical components of a computer system, while firmware is a type of software that is embedded in hardware and provides low-level control over the hardware. Examples of firmware include the BIOS or UEFI firmware that controls the boot process of a computer system and the firmware that controls the operation of hardware components such as hard drives and network adapters.

3. Describe 3 diferences between these two computer systems:

a) Mainframe and server systems are both large-scale computer systems used in

enterprise environments, but mainframes are typically designed for high-performance computing and transaction processing, while servers are designed for network services and data storage.  
b) Servers are designed for network services and data storage, while personal computers are designed for individual use and are typically less powerful than mainframes or servers. Servers often have more powerful hardware components and are designed to handle multiple users and tasks simultaneously

4. Which ones are the three componets of a Computing Sytem?

Hardware, software and users.

5. Von Neumann machine: Which are the essentials componentes of a Von Neumann

machine?

The essential components of a Von Neumann machine are memory, control unit, arithmetic logic unit (ALU), input/output (I/O) devices, and bus.

6. Which are the the main microprocessor components?

are control unit, arithmetic logic unit (ALU), registers, and buses

Control Unit, Aritmethic Logic Unit, Registers, buses (Data,Address,Control)

7. Describe the processor Fetch operation and the processor Execution operation for this low level instruction

The processor Fetch operation retrieves an instruction from memory and stores it in the instruction register. The processor Execution operation decodes the instruction and performs the operation specified by the instruction. For the low-level instruction ADD 033 992 993, the processor would fetch the instruction, decode it as an addition operation, and add the values 033, 992, and 993 together.

8. What is interrupt processing? Which one are the four tipical ones?

is the mechanism by which a computer system handles interrupts, which are signals sent to the CPU by hardware or software components to request attention.

9. What a core is in a processor?

is a processing unit within a CPU that can execute instructions independently. Modern CPUs typically have multiple cores, allowing them to execute multiple instructions simultaneously and improve performance.