Assessment answers

## Multiple choice questions .

| INP  STA A  OUT  HLT  A DAT |
| --- |

Q1. When the INP statement is run on the LMC, which component will hold the data that the user inputs?

A. RAM

B. Hard Drive

C. Accumulator

D. MDR

Answer: C .

Q2. What does the letter A represent in the command STA A ?

A. A register

B. A memory location

C. Data

D. A command

Answer: B .

Q3. What does the line HLT do to the program?

A. Outputs the data in the accumulator

B. Branch it to the end of the program

C. Sets up a data location

D. Stops it

Answer: D .

Q4. When the command STA A is executed, the data in the accumulator will be stored. Which device will it be stored on?

A. SSD

B. RAM

C. ROM

D. A register

Answer: A .

## Text questions .

Q1. Assembly languages can run on how many different processors?

Answer:

| Assembly languages have a 1:1 relationship with machine code. Every assembly language can only run on a particular type of processor. |
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Q2. What is the ROM in a computer system used for?

Answer:

| ROM is used to hold instructions for starting up a computer — such as the BIOS. |
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Q3. Complete the truth table for this logic gate.



| **A** | **B** | **C** |
| --- | --- | --- |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

Q4. Which component of the CPU carries out mathematical operations?

Answer:

| Arithmetic logic unit |
| --- |

Q5. As described by von Neumann, what are the stages of the cycle that the processor undertakes for each instruction in a program?

Answer:

| Fetch, decode, execute |
| --- |

Q6A. Which type of storage uses light to read and write data?

Answer:

| Optical storage |
| --- |

Q6B. Give an example device for this type of storage.

Answer:

| CD, DVD, Blu-ray |
| --- |

Q7. What characteristics make RAM unsuitable for long-term storage?

Answer:

| It is volatile, and has a lower capacity than secondary storage. |
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Q8. What three factors impact the performance of a CPU?

Answer:

| Cache size, clock speed, and amount of cores. |
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Q9. Python is a high-level language, name another example of a high-level language.

Answer:

| Java, C++, C#, Javascript, or any other high-level language |
| --- |

Q10. Give an example of system software.

Answer:

| Operating system, encryption, compression, defragmentation software, and antivirus. |
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Q11. Give two examples of embedded systems.

Answer:

| A coffee maker, security system, smoke alarm, Bluetooth speakers, or any other embedded systems. |
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