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[Embedded Systems Interview Questions](#)

Read Best Embedded Systems Interview Questions

Q1. [Explian what is embedded system?](#)

Q2. [What are major components of embedded system?](#)

Q3. [What is difference between thread and process?](#)

Q4. [What is RISC architecture?](#)

Q5. [What are major differences between CISC Vs RISC?](#)

Q6. [What is a watchdog timer?](#)

A **watchdog timer** is an electronic part of the hardware that detects the computer malfunction and anomalies in the software. During a check for any activity, the timer starts counting from zero and the software restarts. If the software has not restarted and the timer is at zero then it signifies malfunctioning of the software. When you restart the counter of watchdog timer then this process is known as kicking the dog. The watchdog timer is really effective in preventing your system from several dangerous situations by detecting the activity in advance. In the case of multitasking, deadlock can also occur. The watchdog timer is embedded in microcontrollers and triggers the restart whenever needed.

Q7. [What is a memory leak?](#)

Q8. [What is a segmentation fault?](#)

Q9. [What is interrupt latency?](#)

In computing, Interrupt latency means the period that passes from during an interrupt is produced during the

origin of the interrupt is sustained. For various operating arrangements, tools are sustained as shortly as the machine's interrupt handler is administered.

Interrupt latency, which is further called interrupt answer period, is the measure of the period that it uses for a workstation interrupt to be worked on later it has continued to generate. In most workstations, a trade-off subsists among interrupt latency, processor utilization, and throughput. Thus, Interrupt latency signifies the time that transpires amid the event of an intervening appeal and the following performance of the initial guidance of the corresponding interrupt service method.

Q10. [How can you reduce interrupt latency?](#)

Q11. [What is the use of volatile keyword?](#)

The **volatile keyword** is used to check the compiler from utilizing any optimizations on items that can improve in actions that may not be decided by the compiler. Objects listed as volatile are excluded from optimization as their rates can be modified by cryptogram outside the range of prevailing code at every time. A volatile keyword is utilized to change the rate of a variable by diverse threads. It is additionally used to create classes thread-safe. It signifies that many threads may utilize a process and situation of the groups at the identical time sans any difficulty. The volatile keyword may be utilized each with fundamental types or items.

The volatile keyword produces no reserve in the rate of the variable and constantly reads the variable from the principal consciousness. The volatile keyword may not be utilized with groups or programs. Nevertheless, it is managed with variables. It also ensures visibility and systemization. It stops the compiler of the reordering of the cryptogram.

Q12. [What is K-Map?](#)

Q13. [What is JFET?](#)

Q14. [What is a semaphore?](#)

Semaphore is simply a variable that is non-negative and shared between threads. This variable is used to solve the critical section problem and to achieve process synchronization in the multiprocessing environment.

There are two types of Semaphores they are **Binary Semaphore** and **Counting Semaphore**.

Q15. [What is use of segment register in 8086?](#)

Q16. [What Is Loop Unrolling?](#)

Q17. List few advantages and disadvantages of embedded system?

Some advantages and disadvantages of an embedded system are as follows:

- It is easy for mass production.
- It is highly reliable.
- It has very few interconnections.
- It is small in size.
- It is less expensive.
- It performs a fast operation.
- It has improved product quality.
- It optimizes the use of system resources.
- It has a low power operation.

Some disadvantages of an embedded system are as follows:

- It is hard to maintain because it is used and throws device.
- It does not offer technological improvement.
- It provides less power supply durability if it is battery operated.
- It has hard to take the backup of embedded files.

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