Q.1 What is an Operating System and why do we need one?

Soln An OS is a software program that act as an intermediatory among hardware and consumer packages. It manages hardware assets, provides an interface for consumer interaction and helps the execution of programs. We need OS to summarize the complexity of hardware, offer a consumer friendly environment, control assets correctly and enable multitasking

Q.2 What are interrupts and what is the need of them?

Soln They are alerts dispatched to CPU by using hardware or software program to indicate an event that requires on the spot interest

Q.3 What is the architecture of laptop System.

Soln The architecture of a laptop gadget refers to the enterprise and additions. It includes CPU memory, I/O devices communique channels.

Q.4 What is Operating gadget interrupt dealer?

Soln It manages occasions that require immediate interest instead of polling for events, an interrupt dealer OS permits the CPU to handle other tasks until an interrupt takes place, decreasing wastage of processing electricity.

Q.5 What is system of dealing with intrupts?

Sol^{n}
1. Interrupt occurs
2. Interrupt handling
3. Interrupt Service Routine (ISR)
4. Context Switch
5. Resume extraction

[Q.6] What is gadget cells?

Sol^{n} They are interface supplied by OS that allows person stage packages to request offering from OS, together with document operation method creation and reminiscence allocation.

Q.7] Why do OS have twin mode operations?

Sol^{n}] Dual mode operat^{n} include mode - consumer mode and kernel mode
Consumer mode - user operation run on this mode, confined from immediately gaining access to hardware or critical OS sources

Q 9] What is random Access memory

Sol^{n} Random in RAM refers back the capability to get entry to reminiscence location without delay, while not having to subsentially get admission to preceden locations.

Q.10] Differentiate b/w multiprogramming and multi-tasking

Sol^n] Multiprogramming: multiple program executes at a same time on a same device
Multitasking: A single resource is used to process multiple tasks.

Q.11 Explain the process of switching from user mode kernel mode and vice versa.

Sol^n A system name a switch to kernel mode, connecting the mode bit. The CPU saves user mode state, loads kernel mode content and executes the kernel code.
Kernel to user mode:- CPU restores restores consumer mode content and resumes person. code execution.

Q.12 What is Contribut^n of John Von Neumann?
Sol^n His most important contribut^n was the development of logical design for computers that paid attention to such concerns has data storage and processing of instruction.