

Jaypee Institute of Information Technology
Department of Computer Science and Engineering
Course Name: Operating System and System Programming
Course Code: 15B11CI412
Tutorial-2

1. The services and functions provided by an operating system can be divided into two main categories. Briefly describe the two categories and discuss how they differ.
2. What are the five major activities of an operating system in regard to file management?
3. Describe three general methods for passing parameters to the operating system.
4. Describe the actions taken by a kernel to context-switch between processes.
5. Explain the characteristics of suspended process.
6. Explain whether following transitions between process states are possible or not. If possible, give the example.
 1. Running-----Ready
 2. Running-----Waiting
 3. Waiting-----Running
 4. Running----- Terminated
7. Why is it important for the scheduler to distinguish I/O-bound programs from CPU-bound programs?
8. Discuss how the following pairs of scheduling criteria conflict in certain settings.
 - a. CPU utilization and response time
 - b. Average turnaround time and maximum waiting time
 - c. I/O device utilization and CPU utilization
9. Explain the different factor on which computation speed up of an application through concurrency and parallelism would depend.
10. An OS contain two process P1 and P2, with P2 having a higher priority than P1. Let P2 be blocked on an I/O operation and let P1 be running. What action take place when the I/O completion event occurs for the I/O operation of P2.