

### Quiz 3

#### Operating Systems and Networks

IIIT Hyderabad

Time: 30 minutes; Max. Marks: 24

Note: Give a brief and correct answer. **Mention your name and roll number on the answer sheet. Answer the question after writing the FIRST 10 WORDS OF THE QUESTION ALONG WITH THE QUESTION NUMBER in the answer sheet.**

1. In the UNIX system, directory is also treated as a file and there is a minimal difference between file and directory. What is the advantage of keeping minimal difference.
2. Describe the scheduling algorithm followed in UNIX.
3. What are the advantages and the problems of deferred block I/O system in UNIX.
4. Consider the following levels in a hypothetical OS. Take any two operations and discuss the corresponding differences at each level.

LEVEL	NAME	OBJECTS	OPERATIONS
Level 11	Devices (access to external devices)	Printers, displays, and key boards	Create, destroy, open, close, read, write
Level 10	File system	Files	Create, destroy, open, close, read, write

5. There are five levels in THE operating system.. Discuss the advantages of hierarchical organization considering the sample functions or operations of level 0 and level 1. What would have happened, if the services of level 0 and level 1 would have been written in a single level ?

6. Discuss basic problem faced by Dijkstra when he started designing the operating system. Explain how he has employed “probe instructions” and "interrupts" in OS design.