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 the FIRST 10 WORDS OF THE QUESTION ALONG WITH THE QUESTON NUMBER in the answer sheet.**

1. Discuss how the notions of hierarchy and information hiding are helpful in easing the development of operating system?

2. 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 ?

3. What motivated Dijkstra to introduce semaphores?

4. Explain the context of "probe instructions" in Dijkstra's paper entitled "My recollections of OS design". List the problems caused   by probe instructions.

5. Discuss the difference between block I/O system and character I/O system in UNIX.

6. 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