**Operating Systems and Linux**

**I Assignment**

1. What is dual-mode operation? How it protects the operating system from errant users?
2. What are the different types of system calls? List any two Unix/Linux system calls under each type and specify their purpose.
3. Explain the following operating system structure with an example:

i. Layered Approach ii. Microkernels iii. Hybrid structure

1. Give the queueing diagram representation of process scheduling and explain the role of different process schedulers.
2. Give a program to illustrate the usage of fork() call in process creation. Explain role of exec(), wait() and exit() process operations