## • Question1 (4points):

List down the four main components of an operating system.

• Question 2 (4 points):

We know that it is hard to define the boundaries of an Operating System. Still, there are few components of an operating system which are essential to use a computer hardware properly. You are required to list these three components. Briefly describe them.

• Question 3 (2 points): Separate multiprogramming from time-sharing.

- Question1 (4points):
- 1. Processes 2. Memory 3. Files/Storage 4. Network
- Question 2 (4 points):
- 1. CPU Scheduling
- 2. Memory Management
- 3. Inter process and hardware communication
- Question 3 (2 points):

The objective of multiprogramming is to have some process running at all times, to maximize CPU utilization.

The objective of time sharing is to switch the CPU among processes so frequently that users can interact with each program while it is running.