***Final Term Assignment***

***Operating System Concepts***

***Time Allowed: 6 hours Marks: 50***

***Note: Attempt all questions. Copying from Internet and one another is strictly prohibited. Such answers will be marked zero.***

**Q1.** In deadlock prevention strategy do you think it is necessary to check that either safe state exists or not? Give reason to support your answer.

**Q2.** Differentiate between Dynamic loading and Dynamic Linking with the help of examples.

**Q3.** Which component of an operating system is best suited to ensure fair, secure, orderly, and efficient use of memory? Also identify some more tasks managed by that component.

**Q4.** Differentiate between Symmetric and A-Symmetric encryption with the help of example.

#### Q5. Describe the difference between external and internal fragmentation. Why should they be avoided?

#### Q6. List and describe the four memory allocation algorithms covered in lectures. Which two of the four are more commonly used in practice?

## **Q7.** Why is the context switch overhead of a user-level threading as compared to the overhead for processes? Explain.