

**MAY-2008**

**2008-HIMACHAL PRADESH UNIVERSITY**

**B.TECH V SEMESTER DEGREE EXAMINATION**

**PRINCIPAL OF OPERATING SYSTEM**

**(COMPUTER SCIENCE & ENGINEERING)**

**PAPER CODE CS-5001**

**TIME-3 HOUR**

**MARK-100**

**NOTE: ANSWER ANY FIVE QUESTION IN SECTION-A AND SECTION-B IS COMPULSORY**

**SECTION-A[16\*5=80]**

1. What are the different types of Operating system? What are the different characteristics of each of them?
2. What are the major criteria of Scheduling of Process? How processes are executed in a co-operative mode?
3. What is a Deadlock? How is it detected and prevented?
4. What is an Access matrix for protection? How is it Implemented?
5. What is Virtual Memory? Why is it required? How is it implemented in an operating system?
6. What are different Disk Scheduling algorithm? Discuss.
7. What is a Process Sync? What are different algorithm for Process sync?
8. What are different algorithm for space allocation? Discuss.

**SECTION-B[10\*2=20]**

9. Write short answers:
- (i) What is Internal fragmentation?
  - (ii) What is Context switching?
  - (iii) What is Multitasking ?
  - (iv) What is Thrashing ?
  - (v) What is Reentrant code?
  - (vi) What is Swap space ?
  - (vii) What is Demand paging ?
  - (viii) How security threat is monitored ?
  - (ix) What is Multithread ?
  - (x) What is Real-time scheduling.