

MAY-2007

2007-SHIVAJI UNIVERSITY
B.E/B.TECH V SEMESTER DEGREE EXAMINATION
OPERATING SYSTEM
(INFORMATION TECHNOLOGY)

TIME-3 HOUR
MARK-80

NOTE: ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

SECTION-A[16*5=80]

1. a) Discuss multiprogramming OS and Real Time OS with regard to memory management and I/O management.
b) Elaborate the USART mechanism in detail.
2. a) Give the procedure of how polling is carried out in program controlled I/O.
b) Describe in detail Multi-level queue scheduling.
3. a) Write a short note on Programmable Interval Timer.
b) Explain in details Interrupt vectoring.
4. Write short notes on (any three) :
 - a) Functional requirements of the OS
 - b) Serial Processing vs. Batch Processing
 - c) Process control block
 - d) SRTN scheduling.
5. a) Write short notes on any three:
 - a) Monitors
 - b) Messages
 - c) Redirection
 - d) Role of system administrator
6. a) State and explain the producer-consumer problem with unbounded buffer.
b) What is scheduling ? Explain Time-slice scheduling.
7. a) Explain the readers-writers problem of interprocess synchronization.
b) Explain semaphore. How mutual exclusion can be achieved using semaphore ?
8. a) Explain the login procedure for Linux/UNIX operating system.
b) Enlist the different shells in UNIX. Explain any one in detail.