

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act,1956)

Course & Branch :B.E/B.Tech - CSE/DCS/IT

Title of the Paper :Operating Systems

Max. Marks :80

Sub. Code :6C0063

Time : 3 Hours

Date :04/05/2010

Session :FN

PART - A

(10 x 2 = 20)

Answer ALL the Questions

1. Define thread.
2. List the functions of an operating system.
3. What is process abstraction?
4. Compare preemptive and non-preemptive scheduling.
5. What is synchronization primitive? Give examples.
6. What do you mean by deadlock?
7. Define paging.
8. What is file naming? Give some typical file extensions.
9. List any four shell operation commands.
10. Give the use of telnet.

PART – B

(5 x 12 = 60)

Answer All the Questions

11. (a) Explain the basic structure of an operating system. (8)
(b) Describe the factors that influence in operating system design. (4)
(or)
12. Discuss in detail about the implementation consideration in an operating system.
13. (a) Explain how to create and terminate a process?
(b) Write note on process scheduling.
(or)
14. How do you solve the producer-consumer problem using semaphore? Explain.
15. Write a detailed note on Inter Process communication.
(or)
16. Write the conditions for the occurrence of deadlock. Explain the Banker's algorithm with an example.
17. (a) Explain the dynamic paging algorithm.
(b) What is Segmentation? Explain.
(or)
18. (a) Explain the file system layout. Discuss the issues in implementing file storage. (8)
(b) Explain briefly about protection mechanism. (4)
19. (a) Explain the Linux file structure.
(b) Describe about the internet services.
(or)
20. Write a shell program for the following:
(a) to find the sum of 'n' natural numbers. (4)
(b) to find the biggest among three numbers. (8)