2007 CALICUT UNIVERSITY

V SEMESTER B.TECH COMPUTER SCIENCE & NGINEERING

OPERATING SYSTEM

DECEMBER 2007

TIME::3 HOUR
MARK:100

ANSWER ANY TEN QUESTIONS QUESTIONS CARRY EQUAL MARKS

MARKS [10*10=100]

1. What are the functions of process manager?

2. Explain the role of device drivers in computer systems?

3. What is a process control block?what are its components?

4. What is semaphore? How it implemented?

5. Explain the various swapping policies used in memory management.

6. What is thrashing? What are the different ways of solving thrashing?

7. What is capability list? How it used file protection?

8. What is a byte-stream file? Explainthe operations performed on a byte stream file.

9. Explainthe various device management approaches in detail.

10. Describe the characteristics of various types of O.S.

11. Explain the different ways of synchronizing processes using hardware.

12. Explainthe role of resource allocation graph in deadlock detection.

13. Consider the following processes length of CPU burst time in m secs:Process burst time priority
P1 8 1
P2 2 3
P3 2 4
P4 3 2
P5 4 3
Calculate the average turn around time and average waiting time when the following scheduling policies are used: FCFS,SJF,Priority

14. Explain the design issues of paging memory management.

15. Explain the principles of operation of segmentation.

16. What is a working set model? Explain the usage in memory management.

17. Explain the internal access authorization mechanism.

18. Explain the various issues related to directory implementation.

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