

D 42853

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Name.....

Reg. No.....

FOURTH SEMESTER B.Voc. DEGREE EXAMINATION, MAY 2018

(CUCBCSS-UG)

Software Development

SDC4IT13—OPERATING SYSTEMS

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer all questions.
Each question carries 1 mark.*

1. _____ is the rudimentary form of multiprogramming.
(a) Buffering. (b) Spooling.
(c) Simple multiprogramming. (d) none of these.
2. BIOS is _____.
3. When a process is being created its state is _____ state.
4. What will be the value of a counting semaphore if the 3 Signal operation are performed after initializing the value to be 0.
(a) 0. (b) 3.
(c) - 3. (d) None of these.
5. The wastage of memory space that is not any part of the partition is called _____.
6. In the concept of virtual memory, if the desired page is found in the primary memory then it is known as _____.
7. In _____ access method information in the file is accessed in order one record after the other.
8. _____ Layer in the file system issues generic commands to the appropriate device driver to read and write physical block on the disk.
9. _____ command is used in Unix to perform arithmetic operation.
10. The command used to list all the files in the system is _____.

(10 × 1 = 10 marks)

Section B

*Answer any eight questions.
Each question carries 2 marks.*

11. List the important functions of OS.
12. What are time sharing systems ?

Turn over

13. What are the advantages of multiprogramming ?
14. What is semaphore ? What are the operations performed on it ?
15. Which are the states of a process ?
16. What is preemptive and non preemptive scheduling ?
17. What is meant by fragmentation ?
18. What is the significance of dirty bit in page replacement ?
19. What is meant by single level directory ?
20. Which are the attributes of a hash table ?
21. What is contiguous memory allocation ?
22. Write a shell command for locating a file named college from home directory.

(8 × 2 = 16 marks)

Section C

*Answer any six questions.
Each question carries 4 marks.*

23. Compare distributed systems and parallel systems.
24. Briefly explain different types of OS and its uses.
25. What is safe state ? How do we check whether a state is safe or not ?
26. Explain FCFS algorithm in detail with an example.
27. What do you mean by demand paging ? Explain the steps used to handle the page fault.
28. Differentiate between dynamic linking and dynamic loading.
29. What are the allocation methods of a disk space ?
30. Explain the access methods of a file system.
31. Explain the input and output redirection with suitable examples.

(6 × 4 = 24 marks)

Section D

*Answer any two questions.
Each question carries 15 marks.*

32. Define :
 - (a) Time sharing system ;
 - (b) Real time system and
 - (c) Serial processing system.
33. Explain the classical problems of synchronization.
34. Explain file system structure. Explain the layers of a file system with neat diagram.
35. Explain the conditional and looping statements in Unix.

(2 × 15 = 30 marks)