

17U670

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Name:

Reg. No.....

SIXTH SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

CC17U BCA6 B12 - OPERATING SYSTEMS

Computer Application–Core Course

(2017 Admissions - Regular)

Time: Three Hours

Maximum: 80 Marks

PART I

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

1. What is a semaphore?
2. Define the term process
3. What is the use of **cp** command in shell scripting?
4. Write an example for shells in Unix?
5. What is Turnaround time?
6. Write an example of a preemptive scheduling algorithm?
7. What is a logical address?
8. Define the term page fault.
9. Write an example for Mobile OS?
10. What is authorization?

(10 x 1 = 10 Marks)

PART II

Answer *all* questions. Each question carries 2 marks.

11. Write a note on time sharing system?
12. What is the use of **cat** command using an example?
13. What is a system call? Write an example of a system call?
14. What is a critical section problem?
15. How TLB is used in paging?
16. What is mutual exclusion?
17. What is Belady's anomaly?
18. What do you mean by access matrix?

(8 x 2 = 16 Marks)

PART III

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

19. Explain the process states with a neat diagram
20. What is a thread? Write the benefits of multithreaded programming
21. Distinguish Sequential and direct access methods.
22. How semaphores are used to solve critical section problem
23. What is thrashing? How thrashing happens
24. Write short notes on Overlays?
25. Explain with suitable example conditional commands in shell scripts?
26. Write short notes on the history of mobile OS.
27. Write short notes on
 - a) Authentication
 - b) Authorization

(6 x 4 = 24 Marks)

PART IV

Answer any *three* questions. Each question carries 10 marks.

28. Explain with suitable example, how deadlock can be avoided by using the Resource allocation algorithm and banker's algorithm
29. Discuss classic problems of synchronization
30. Explain Page Replacement Algorithms
31. Explain different types of Operating Systems.
32. a) Write a shell program to print even numbers between 0 and 100
b) With suitable example discuss the commands used for Navigating the Linux File systems

(3 x 10 = 30 Marks)
