



Sambath

Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test- I August 2024
Semester III

Class: II UG

Major: Computer Applications

23BCAC05 Operating Systems

Time: 2 Hrs

Maximum Marks:60

Course Outcomes:

1. Recall the concepts of file management.
2. Apply security aspects in appropriate situations.
3. Apply knowledge gained through processor scheduling to other applications.
4. Analyze features and limitations of operating systems.
5. Explore various other operating systems.

Part-A

Choose the correct answer

6x1=6

1. Shortest-remaining-time-first scheduling is also referred as
a. Round-Robin Scheduling b. Preemptive SJF scheduling
c. Priority Scheduling d. First-Come, First-Served Scheduling
CO3K2
2. Executing several instructions simultaneously is
a. multitasking b. serial processing
c. parallel processing d. multiprocessing
CO3K3
3. Reusable resources are the one
a. That can be used by one process at a time and is not depleted by use
b. That can be used by more than one process at a time
c. That can be shared between threads
d. That can be shared between processes simultaneously
CO4K2
4. A system is in the safe state if
a. There exist a safe sequence
b. The system can allocate resources to each process randomly
c. The system can allocate equal number of resources to each process to avoid a deadlock
d. The system can allocate resources to each process in some order and still avoid a deadlock
CO4K4
5. Mobile operating systems are specialized software that runs on?
a. Smartphones b. tablets c. Both A and B d. Laptops
CO5K4
6. Which OS is developed by the Linux Foundation?
a. iOS b. KaiOS c. LuneOS d. Tizen
CO5K3

Part-B

Answer ALL Questions

3x6=18

Answer should not exceed 400 words or two pages

7. a. Explain SRT scheduling. CO3K1
(or)
7. b. Discuss about highest response ratio next scheduling. CO3K2
8. a. Illustrate the conditions for deadlock occurrence. CO4K3
(or)
8. b. Explain in detail about the various file organizations. CO4K2
9. a. Discuss about user authentication methods. CO5K2
(or)
9. b. Illustrate the protection mechanism of os. CO5K2

Part-C

Answer ALL Questions

3x12=36

Answer should not exceed 800 words or four pages

10. a. Explain multiprocessor interconnection schemes. CO3K3
(or)
10. b. Demonstrate multiprocessor operating system organization. CO3K2
11. a. Explain the concept of Deadlock Avoidance using Dijkstra's Banker's Algorithm. CO4K2
(or)
11. b. Explain the various Database Models. CO4K2
12. a. Explain in detail about Linux Operating System CO5K4
(or)
12. b. Explain in detail about Windows Operating System. CO5K4
