D6BCA2102

Reg.No.............................

Name: ....

SIXTH SEMESTER UG DEGREE EXAMINATION, APRIL 2024

(Regular/Improvement/Supplementary)

BCA

GBCA6B12T: OPERATING SYSTEMS

Time: 2 Hours   **Maximum Marks: 60**

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 20 Marks)

1. Mention the activities of operating system in connection with device management.
2. Define pipes in Linux.
3. List any three user authentication methods.
4. Explain 'echo' command with an example.
5. List various file operations.
6. What is meant by turnaround time?
7. Define critical section.
8. Write a note on expr command.
9. Define physical memory and logical memory.
10. Define authorization.
11. What is meant by concurrency?
12. List any *four* mobile operating system.

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 30 Marks)

13. With neat diagram explain the architecture of mobile OS.
14. What is the use of resource allocation graph? Explain with an example.
15. Explain different methods used to implement protection and security in a computer system.
16. With neat diagram explain contiguous allocation of files.
17. Explain with diagram dynamic relocation using relocation register.
18. Differentiate between Binary Semaphores and Counting Semaphores.
19. Explain the characteristics of multi programmed systems.

SECTION C: Answer any *one* question. Each carries *ten* marks.

20. What is bash shell? Discuss special characters available in bash shell.
21. Briefly explain virtual memory. What are its advantages? Explain any two page replacement algorithams.

(1 x 10 = 10 Marks)