

(FOR THE CANDIDATES ADMITTED

24UCS308

DURING THE ACADEMIC YEAR 2025 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER- 2025

B.Sc Computer Science(AIDED & SF)

MAXIMUM MARKS: 75

SEMESTER : III

TIME : 3 HOURS

PART - III

24UCS308- OPERATING SYSTEM CONCEPTS AND LINUX

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. What is an Operating System?
 - a) interface between the hardware and application programs
 - b) collection of programs that manages hardware resources
 - c) system service provider to the application programs
 - d) all the above mentioned
2. Which of the following is the simplest page replacement algorithm?
 - a) FIFO
 - b) Optimal page replacement
 - c) LRU replacement
 - d) Counting based replacement
3. Which command is used to display the Operating System name?
 - a) os
 - b) unix
 - c) kernel
 - d) uname
4. When does the event for which a thread is blocked occur?
 - a) thread moves to the ready queue
 - b) thread remains blocked
 - c) thread completes
 - d) a new thread is provided
5. Which of the following the signal operation of the semaphore basically works on a basic system call?
 - a) continue()
 - b) wakeup()
 - c) getup()
 - d) start()

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Define Process States.
7. What is Round Robin?
8. Define Seek Optimization.
9. What do you mean by a Procen Signal?.
10. Define Process Semaphores.

SECTION – B**(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Illustrate the Process States Transition Operations.
(OR)
b) Compare the Contiguous and Non-contiguous storage allocation.
12. a) Describe the Page Replacement Strategies.
(OR)
b) Examine Demand Paging with example.
13. a) Discuss the Shell Programming with example.
(OR)
b) Examine File Permission commands in Linux.
14. a) Describe the Creating Process creation and termination.
(OR)
b) Distinguish between Process Versus Threads.
15. a) Describe the Mapped Memory.
(OR)
b) Interpret the File System Permissions.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4 (Or) K5)**

16. a) Discuss the Real Storage Management Strategies.
(OR)
b) Interpret the Single User Contiguous Storage allocation.
17. a) Summarize the Virtual Storage Management Strategies.
(OR)
b) Compare the Preemptive Vs Non-preemptive scheduling.
18. a) What are the Need for disk scheduling? Explain.
(OR)
b) Discuss the Vi Editing and Network Commands in Linux.
19. a) Evaluate the GNU/Linux Thread Implementation.
(OR)
b) Summarize the Thread Creation and Cancellation.
20. a) Discuss the Pipes and Sockets.
(OR)
b) Compare the Process User IDs and Group IDs.

Ethical paper