K24U 3585

Reg. No. : .....

Name : .....

III Semester B.Sc. Degree (CBCSS – OBE – Regular)
Examination, November 2024
(2023 Admission)
GENERAL AWARENESS COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
3A01 AIML : Operating System and Linux Shell Programming

Time : 3 Hours Max. Marks : 40

PART – A
(Short Answer)

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

1. Define OS.
2. What is a process ?
3. What is IPC ?
4. Which algorithm is used for deadlock avoidance if there is multiple instances of each resource type ?
5. What is virtual memory ?
6. What is a semaphore ? **(6×1=6)**

PART – B
(Short Essay)

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

7. What is critical section problem ?
8. What is paging ?

P.T.O.

9. Compare free software and open source software.
10. What are the necessary conditions for a deadlock ?
11. What are the different types of system calls ?
12. What are the functions of OS ?
13. List out best practices for working with open source developers.
14. Write about standard input/output directories in Unix. (6×2=12)

PART – C
(Essay)

Answer **any 4** questions. **Each** question carries **3** marks.

15. Explain scheduling criteria.
16. Describe any one page replacement algorithm.
17. Explain how to recover from a deadlock.
18. Explain text editors.
19. Explain shell programming.
20. Explain file access methods. (4×3=12)

PART – D
(Long Essay)

Answer **any two** questions. **Each** question carries **5** marks.

21. Explain different types of OS.
22. Describe any two CPU scheduling algorithms.
23. Explain basic commands – cd, mkdir, echo, ls, pwd, rm, who, date, cp, mv, cat, ps in Unix.
24. Compare and contrast the different control flow mechanisms in shell scripting. (2×5=10)