397

October 2023

<u>Time – Three hours</u>
(Maximum Marks: 100)

[N.B.   1.   Answer all questions under Part-A. Each question carries 3 marks.

2.   Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1.   What is an operating system?

2.   What is GUI? Give one Example.

3.   Define thread and list its types.

4.   What is IPC?

5.   What are the principles used in paging?

6.   What is address translation?

7.   What is disk formatting?

8.   List any six file attributes.

9.   List any six features of Linux.

10.   What are the two types of security threats?

[Turn over.....

PART - B

11. (a) (i) Explain system call execution with an example.(7)
    (ii) Explain monolithic operating system structure.(7)

    (Or)

    (b) Explain the services provided by operating system.

12. (a) (i) What is process? Explain process life cycle. (7)
    (ii) Discuss deadlock prevention and avoidance. (7)

    (Or)

    (b) Explain any four scheduling algorithms.

13. (a) (i) Discuss the necessity of virtual memory. (7)
    (ii) Explain logical and physical address map. (7)

    (Or)

    (b) Explain demand paging with neat diagram.

14. (a) Explain any two disk scheduling algorithms.

    (Or)

    (b) With neat diagram, explain directory structure.

15. (a) With neat diagram, explain Linux architecture.

    (Or)

    (b) (i) Explain how to create, modify and delete group accounts in Linux. (7)
    (ii) Define Linux shell and explain types of Linux shell. (7)

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