

Registration Number:

Date & session:



ST JOSEPH'S UNIVERSITY, BENGALURU -27
BCA (DATA ANALYTICS) – 4th SEMESTER
SEMESTER EXAMINATION: APRIL 2024
(Examination conducted in May / June 2024)
BCADA 4222: OS USING LINUX
(For current batch students only)

Time: 2 Hours

Max Marks: 60

This paper contains ONE printed page and THREE parts

PART - A

Answer All the questions

5 X 2 = 10

1. Define re-entrant kernels in Linux operating system.
2. What is the role of interprocess communication in Linux?
3. Write the syntax and purpose of PS command.
4. Write note on dentry objects.
5. Define page frame.

PART - B

Answer any Five questions

5 X 4 = 20

6. Explain LINUX file system hierarchy (Linux Directory Structure) with a neat sketch.
7. Define a system call. Explain how the system call differs from library functions.
8. Discuss the relationship among processes.
9. What is an orphan process? How LINUX handles orphan process? Explain.
10. Discuss file system mounting in LINUX with an example.
11. Explain the working principle of zoned page frame allocator.
12. Write note on Program Segments and Process Memory Regions.

PART - C

Answer any Three questions

3 X 10 = 30

13. Explain how to create a process in LINUX with an example. Also discuss how to terminate a process.
14. Discuss how LINUX efficiently handle filesystem.
15. Explain how to solve external fragmentation problem using buddy system algorithm.
16. Illustrate how to read from and write into a pipe with a suitable example.