

Subject Code:-

B C A - 3 0 1

Subject:-

Operating System &amp; Linux Programming

Roll No:-

## TECNIA INSTITUTE OF ADVANCED STUDIES

BCA

Class Test (2025-2026)

Sem: V

Set-1

Date:

Time: -1:00 Hours

Max. Marks: 30

**General Instructions:**

- All Questions are compulsory. Answers should be brief and to the point.
- It comprises three sections, A, B, and C. you are to attempt all the sections.
- **Section A** – Question No -1 is Very Short Answers type carrying 2 marks each. You are required to answer ALL.
- **Section B**- Question No-3 is Short Answers type question carrying 5 marks each. You are required to attempt any TWO out of THREE questions given.
- **Section C**- Question No -4 is Long Answer type question carrying 10 marks each. You need to attempt any one.
- Students are instructed to cross the blank sheets before handing over the answer sheet to the invigilator.
- No sheet should be left blank. Any written material after a blank sheet will not be evaluated /checked.

|                   |   | CO        | BT     | M                |
|-------------------|---|-----------|--------|------------------|
| <b>SECTION –A</b> |   |           |        | <b>(10)</b>      |
| <b>1.</b>         | <b>Attempt All of the following.</b>  |           |        | <b>(5*2=10)</b>  |
| a.                | What is an Operating System?  | CO1       | L1, L2 |                  |
| b.                | Explain segmentation in memory management?  | CO1       | L1, L2 |                  |
| c.                | Write brief note on thrashing?  | CO1, CO2  | L1, L2 |                  |
| d.                | Define IPC?   | CO1       | L1, L2 |                  |
| e.                | Explain the usage of commands ls-l ,pwd, tty, and info ?  | CO2       | L1, L2 |                  |
| <b>SECTION –B</b> |   |           |        |                  |
| <b>2.</b>         | <b>Answer any <u>Two</u> of the following.</b>  |           |        | <b>(2*5=10)</b>  |
| a.                | What are the different modes of vi editor? Also write commands / keys used for switching between these modes? | CO1, CO2  | L1,L2  |                  |
| b.                | Discuss 5 different functions of Operating system?  | CO1, CO2  | L1,L2  |                  |
| c.                | Explain different states of a process?  | CO1, CO2  | L1,L2  |                  |
| <b>SECTION –C</b> |   |           |        |                  |
| <b>3.</b>         | <b>Answer any <u>One</u> of the following.</b>  |           |        | <b>(1*10=10)</b> |
| a.                | Elaborate Architecture of Linux (with diagram)?   | CO1, CO2, | L1,L2  |                  |
| b.                | Explain deadlock and 4 different conditions for its occurrence?   | CO1.CO2,  | L1,L2  |                  |