



SE – 536

**II Semester B.C.A. Examination, June/July 2026
(SEP 2024 – 25)**

24BCA23 : OPERATING SYSTEM

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all Sections.

SECTION – A

- I. Answer **any eight** questions. **Each** question carries **2** marks. **(8×2=16)**
- 1) Define operating system. List any two goals of it.
 - 2) Define program and process.
 - 3) What is batch processing ?
 - 4) What is PCB ?
 - 5) Write a note on Pre-emptive scheduling.
 - 6) What is swapping with respect to the memory management ?
 - 7) Define the page fault.
 - 8) What is primary memory ?
 - 9) Write any two advantages of Linux operating system.
 - 10) Define shell in Linux. List any two types of shells.

SECTION – B

- II. Answer **any four** questions. **Each** question carries **6** marks. **(4×6=24)**
- 11) Write and explain the functions of operating system.
 - 12) Explain different states of process with the neat diagram.
 - 13) What is multithreading ? Explain different multithreading concepts.
 - 14) Write any two CPU scheduling algorithms. Explain with example.
 - 15) Define the deadlock. Write the characteristics of deadlock.
 - 16) Explain any five Linux internal command.

P.T.O.





SECTION - C

III. Answer any five questions. Each question carries 8 marks.

(5×8=40)

- 17) Explain the different types of operating systems.
- 18) Explain the following classical problems of process synchronizations.
 - a) Readers – writers. 4
 - b) Dining – Philosophers. 4
- 19) Explain paging and segmentation with neat diagrams.
- 20) Explain in detail about secondary storage devices.
- 21) Explain file system implementation methods and directory structure.
- 22) What is virtual memory ? Explain demand paging and page replacement.
- 23) a) Discuss Linux architecture. 5
- b) Explain file permission types in Linux. 3