

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2024
(Sixth Semester)

Branch – SOFTWARE SYSTEMS (five year integrated)

UNIX ARCHITECTURE AND PROGRAMMING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. What command is used to display the current working directory in Unix?
i) `cd` ii) `ls` iii) `pwd` iv) `dir`
2. Which symbol is used to comment out a line in a shell script?
i) # ii) // iii) -- iv) *
3. In Unix/Linux, what is the purpose of the buffer cache?
i) To store user passwords
ii) To temporarily hold data from disk
iii) To manage network connections
iv) To execute system commands
4. Which command is used to view the currently running processes in Unix/Linux?
i) `top` ii) `ps` iii) `ls` iv) `proc`
5. In memory management, what is the term for a situation where a requested page is not in the main memory?
i) Page flip ii) Page hit iii) Page fault iv) Page swap

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a. Elucidate File System in Unix.
OR
b. Explain Regular Expression with example.
- 7 a. Discuss Command Line Arguments.
OR
b. Illustrate File System Architecture.
- 8 a. Justify Kernel Data Structure.
OR
b. Specify the Allocation of Disk Blocks.
- 9 a. Describe Context of a Process in detail.
OR
b. Discuss Process Scheduling.
- 10 a. List out the importance of Swapping Processes.
OR
b. Narrate Page Faults.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Evaluate General Purpose Utilities.
OR
b. Explain Communication and Scheduling.
- 12 a. Specify the importance of Shell Scripts.
OR
b. Describe Decision Making with example in detail.
- 13 a. Summarize the concepts of Reading and Writing Disk Blocks.
OR
b. Bring out the essentials of Conversion of a pathname to an inode.
- 14 a. Illustrate Process System.
OR
b. Highlight the working of Awaiting Process Termination.
- 15 a. Explain Demand Paging.
OR
b. Enumerate Data Structures of Demand in Memory Management.

Z-Z-Z

END