

Roll No

MCADD-705(1)
M.C.A. (Integrated), VII Semester
Examination, November 2023
Unix and Shell Programming
(Elective - II)
Time : Three Hours

Maximum Marks : 70

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Define structure of the buffer pool with example. 7
b) Explain process states and transition. 7
2. Discuss various scenarios for retrieval of buffer. Also write get blk algorithm. 14
3. a) What are the two types of semaphores in UNIX? 7
b) What are in-core inodes? Write the algorithm for allocation of in-core inodes. 7
4. a) Explain super block. What fields does it contain? 7
b) Define Shell programming. 7
5. a) Write Features of Linux, Linux structure and various flavours of linux? 7
b) What are named pipes? Explain logical view of reading and writing pipes. 7

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6. a) Discuss the structure of awk-script. Write expressions that could be used as pattern in the program line of an awk-script. 7
- i) To print every line with more than three fields.
- ii) Print last field of the last line.
- b) Write steps to Sleep process creation/termination. 7
7. a) Discuss Awk built in variable names and operators, arrays, strings and functions. 7
- b) What are shell variables? Explain them by taking examples. 7
8. Write short notes on : 14
- a) Inter process communication
- b) Sleep process creation
