



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



Bachelor of Computer Applications (Semester- 4) External Examination – 2026
US04MABCA02: Operating Systems

Date: 25-03-2026, (Wednesday)

Time: 01:45 PM to 04:15 PM (2.5 hrs)

Total marks: 50

Q-1 Write the most appropriate answer from the following MCQ.

[10]

- (1) In operating system structure, BI is stands for _____.
 - (a) Batch Line Interface
 - (b) Batch Inter Interface
 - (c) Batch Base Interface
 - (d) Batch Outer Interface
- (2) Multi-tasking system also known as _____.
 - (a) Real-time
 - (b) Time-sharing
 - (c) Multi-user
 - (d) None of these
- (3) The operating system manages _____.
 - (a) Memory
 - (b) Processor
 - (c) Disk and I/O devices
 - (d) All of the above
- (4) _____scheduling algorithm gives minimum Page Faults.
 - (a) FIFO
 - (b) Optimal
 - (c) LRU
 - (d) None of these
- (5) _____page replacement algorithm suffers from Belady's anomaly
 - (a) FIFO
 - (b) Optimal
 - (c) LRU
 - (d) None of these
- (6) Which of the following memory allocation strategy is fastest?
 - (a) Best-fit
 - (b) Worst-fit
 - (c) Optimal-fit
 - (d) First-fit
- (7) _____buffer has fixed buffer size.
 - (a) Bounded
 - (b) Unbounded
 - (c) Shared
 - (d) None of these
- (8) Multiple process solution is also known as _____.
 - (a) Paging algorithm
 - (b) Bankers Algorithm
 - (c) bakery algorithm
 - (d) None of these
- (9) _____ is not a valid LINUX file system.
 - (a) EXT2
 - (b) EXT
 - (c) EXE
 - (d) All of them
- (10) For getting present working directory _____ command is used
 - (a) wd
 - (b) pwd
 - (c) pd
 - (d) dir



Q-2 Explain process state and its transitions . [10]

OR

Q-2 List out various types of OS. Explain Time Sharing Operating System. [10]

Q-3 What is Memory Management? Explain Memory Management Allocation Techniques. [10]

OR

Q-3 Explain FIFO page replacement algorithm with advantages and disadvantages. [10]

Q-4 What is Cooperative Process? Explain Producer-Consumer Problem. [10]

OR

Q-4 What is LINUX? Explain basic features of LINUX Operating System . [10]

Q-5 Write a note on chmod with example. [10]

OR

Q-5 Explain grep command with at least five possible attributes and examples [10]

===XXX===

