

Dr. Babasaheb Ambedkar Open University
Term End Examination January – 2026

Course	: BSCIT	Date	: 28/02/2026
Subject Code	: BSCIT-104	Time	: 11:30am to 01:45pm
Subject Name	: Fundamentals of Operating System	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain File System Interface and File System Implementation in an Operating System.
2. What is an Operating System? Explain its definition, evolution and importance in computing.
3. What is Paging? Discuss how paging works and explain page faults with examples.
4. Define Threads. How are Processes and Threads different? Give examples.
5. What is Cryptography? Explain its role in Operating System security.

Section B

Answer the following (Attempt any four) (20)

1. Explain a real-time operating system.
2. Explain Virus and Worm.
3. Explain the Batch Operating System with its advantages.
4. Explain Memory Management in OS.
5. Explain File Allocation Methods.
6. Explain Process States with a diagram.

Section C

Part – A (Multiple Choice Questions) (10)

- 1 A computer system has a collection of components for _____ data
A Storing B Processing
C Moving D All of these
- 2 _____ process initialized at system startup and then wait in the background until their service is required
A Batch B Daemons
C Interactive D All of these
- 3 PCB stands for:
A Process Control Block B Program Counter Block
C Primary Control Buffer D Process Code Base
- 4 Authentication is used for:
A User verification B Memory allocation
C Process creation D Scheduling
- 5 Paging is a technique of:
A CPU Scheduling B Memory Management
C File Management D Security
- 6 File is a collection of:
A Programs B Related information
C CPU registers D Instructions only

- 7 Example of Real-Time OS is:
A Windows B Linux
C VxWorks D MS Word
- 8 File allocation method includes:
A Contiguous B Linked
C Indexed D All of these
- 9 Worm is different from virus because it:
A Needs host file B Self-replicates without host
C Improves OS D None of these
- 10 An operating system is a type of:
A Application Software B System Software
C Utility Software D Compiler

Part – B (Do as Directed)

(10)

- 1 CPU scheduling selects process from _____ queue.
- 2 Monitoring utilities were put to memory when required in simple batch processing systems (True/False)
- 3 FIFO stands for _____.
- 4 OS acts as an interface between user and _____.
- 5 Protection prevents unauthorized access. (True/False)
- 6 I/O stands for Input and _____.
- 7 An Operating system is an example of system software (True/False)
- 8 Security protects system against _____.
- 9 LRU stands for _____.
- 10 Mutual exclusion is a condition for _____.
