

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

Course	: BSCIT	Date	: 21/08/2026
Subject Code	: BSCIT-502	Time	: 11:30am to 01:45pm
Subject Name	: Mobile Operating System	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the functions of an Operating System from the user view and system view.
2. Explain Process Management and describe the different states of the Process Life Cycle.
3. Explain Mobile Computing and discuss its major characteristics.
4. Explain the major functionalities of a Mobile Operating System.
5. Explain the Android Operating System Architecture with a suitable diagram.

Section B

Answer the following (Attempt any four) (20)

1. State any five advantages of a Real-Time Operating System (RTOS).
2. Differentiate between a Process and a Thread.
3. Explain the major responsibilities of a Mobile Operating System.
4. State any five characteristics of mobile devices.
5. Explain the features of the iOS Mobile Operating System.
6. Write a short note on BlackBerry Mobile Operating System and state its major features.

Section C

Part – A (Multiple Choice Questions) (10)

Q.1 Which operating system is specifically designed to provide responses within defined time constraints?

- | | |
|-------------------------------|---------------------------------|
| A) Network Operating System | B) Distributed Operating System |
| C) Real-Time Operating System | D) Multi-User Operating System |

Q.2 Which component stores information required by the operating system to manage a process?

- | | |
|--------------------------|--------------------------|
| A) Process Control Block | B) File Allocation Table |
| C) Device Controller | D) Memory Buffer |

Q.3 Which memory allocation method allocates memory during program execution?

- | | |
|--------------------------|-----------------------|
| A) Static Allocation | B) Dynamic Allocation |
| C) Sequential Allocation | D) Fixed Allocation |

Q.4 Which term refers to computing while a user or device is moving from one location to another?

- | | |
|-----------------------|--------------------------|
| A) Batch Computing | B) Mobile Computing |
| C) Parallel Computing | D) Centralized Computing |

Q.5 Which technology is primarily used to determine the geographical location of a mobile device?

- | | |
|---------|----------|
| A) BIOS | B) GPS |
| C) POST | D) ASCII |

Q.6 Which type of memory is normally used to store the operating system and pre-installed programs in a mobile device?

- A) RAM
- B) Cache
- C) ROM
- D) Register

Q.7 Which component of a mobile operating system is responsible for core functions such as process and memory management?

- A) Browser
- B) Kernel
- C) Application
- D) Widget

Q.8 Which company originally developed the Android operating system before it was acquired by Google?

- A) Android Inc.
- B) Apple Inc.
- C) Symbian Ltd.
- D) BlackBerry Ltd.

Q.9 Which Android component provides a screen through which a user can interact with an application?

- A) Activity
- B) Service
- C) Broadcast Receiver
- D) Content Provider

Q.10 Which native graphics toolkit is associated with the Symbian operating system?

- A) Cocoa Touch
- B) AVKON
- C) Metro UI
- D) WebView

Part – B (State whether the following statements are true or false)

(10)

- 1 A distributed operating system can use multiple networked computers for distributed processing.
- 2 The operating system is responsible for managing system resources such as CPU, memory and devices.
- 3 A thread is considered a lightweight unit of execution within a process.
- 4 Swapping is a technique used by an operating system for memory management.
- 5 Wireless communication is an important component of mobile computing.
- 6 Mobile operating systems manage functions such as calls, messages and notifications.
- 7 ARM processors are commonly used in mobile devices because of their suitability for low-power operation.
- 8 Application frameworks provide services that can be used by mobile application developers.
- 9 iOS is designed primarily for Apple mobile devices.
- 10 Symbian has been used as an operating system on smartphones.
