



41301

**BRAINWARE UNIVERSITY**

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2025-2026**Programme – B.Tech.(RA)-2022****Course Name – Mobile Application Development for IoT****Course Code - OEC-ECR802A****(Semester VIII)****Full Marks : 60****Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. *Choose the correct alternative from the following :*

- (i) Identify the base of the Android platform architecture
 - a) Android Runtime
 - b) Application Layer
 - c) Linux Kernel
 - d) Middleware
- (ii) Recognize the primary programming language used in Android applications
 - a) Swift
 - b) Python
 - c) Kotlin
 - d) Ruby
- (iii) Identify the file that declares application components
 - a) MainActivity.java
 - b) build.gradle
 - c) AndroidManifest.xml
 - d) settings.gradle
- (iv) State the role of Dalvik in Android
 - a) UI framework
 - b) Hardware driver
 - c) Database engine
 - d) Virtual machine
- (v) Explain the role of Android SDK in application development
 - a) Manages hardware
 - b) Executes applications
 - c) Provides APIs and tools
 - d) Controls UI themes
- (vi) Describe the concept of Intent in Android
 - a) Messaging object between components
 - b) UI layout file
 - c) Database handler
 - d) Resource manager
- (vii) Explain the function of Broadcast Receivers
 - a) Perform UI updates
 - b) Receive system-wide messages
 - c) Execute background threads
 - d) Manage application context
- (viii) Interpret the purpose of Android Manifest file
 - a) Compile source code
 - b) Declare app components and permissions
 - c) Store UI layouts
 - d) Manage runtime memory
- (ix) Demonstrate Service execution for background processing

- a) Perform UI rendering
- b) Handle user clicks
- c) Execute background operations
- d) Display dialogs
- (x) Describe the purpose of layouts in Android UI design
 - a) Control hardware
 - b) Arrange UI elements
 - c) Execute background tasks
 - d) Handle permissions
- (xi) Describe the significance of screen density in UI design
 - a) Network speed
 - b) Device resolution handling
 - c) Database storage
 - d) App security
- (xii) State the purpose of versioning in app publishing
 - a) UI styling
 - b) App updates
 - c) Resource loading
 - d) Memory allocation
- (xiii) Identify a testing category for Android apps
 - a) Unit testing
 - b) UI theming
 - c) Resource binding
 - d) Permission mapping
- (xiv) Describe different types of Android resources
 - a) Only layouts
 - b) Strings, layouts, drawables
 - c) Only animations
 - d) Only styles
- (xv) Describe the difference between internal and external storage
 - a) Same accessibility
 - b) Both encrypted
 - c) Private vs shared access
 - d) Both cloud-based

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. Describe common Android terminologies used in application design. (3)
- 3. Define testing of Android applications. (3)
- 4. Explain the function of Android Web APIs. (3)
- 5. Name the core components present in an Android application. (3)
- 6. Differentiate between static and dynamic UI elements. (3)

OR

- Analyze the visual role of animation in user engagement. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Define the Android platform and its evolution. (5)
- 8. Summarize the role of the Android Manifest file in the application lifecycle. (5)
- 9. Analyze the role of broadcast receivers in event handling. (5)
- 10. Analyze common issues in poorly designed Android interfaces. (5)
- 11. Analyze the role of telephony APIs in communication-centric applications. (5)
- 12. Analyze the effectiveness of Android application testing strategies. (5)

OR

- Analyze the challenges involved in publishing Android applications. (5)

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