2/31

2911N887

Candidate's Seat No :_____

B.Sc Sem.-5 Examination

CC 304

Computer Science

Time : 2-30 Hours] **November-2024** **[Max. Marks : 70**

Q1(A)	Explain the architecture of the Android operating system. Include details about the key layers and components.	(7)
Q1(B)	What are the primary differences between Activities and Services in Android? Provide examples of when to use each.	(7)
	OR	
Q1(A)	Describe the Android application lifecycle. Why is it important for developers to understand this lifecycle?	(7)
Q1(B)	What is an Intent in Android? Differentiate between explicit and implicit intents with examples.	(7)
Q2(A)	What are the main components of an Android application? Explain each component briefly.	(7)
Q2(B)	Explain the concept of Android permissions and why they are necessary.	(7)
	OR	
Q2(A)	What are the differences between a Fragment and an Activity in Android? Can a Fragment exist without an Activity?	(7)
Q2(B)	If an Android application uses a Broadcast Receiver to listen for system events, what happens if the application is not currently running? Explain how the Broadcast Receiver still functions in this case.	(7)
Q3(A)	What is a ViewGroup in Android? Provide examples of different types.	(7)
Q3(B)	Describe the purpose of the XML layout files in Android. How do they relate to the Java/Kotlin code?	(7)
	OR	
Q3(A)	Explain how themes and styles work in Android. How would you apply a style to a specific view in your layout?	(7)
Q3(B)	Describe the difference between LinearLayout and RelativeLayout in Android.	(7)
Q4(A)	Compare and contrast messaging apps (e.g., WhatsApp, Telegram) with traditional SMS functionality on Android. What are the advantages and disadvantages of each?	(7)
Q4(B)	What security features are integrated into Android messaging and email apps? Discuss how these features protect user data.	(7)
	OR	
Q4(A)	If a user receives a message in an email app that also has a messaging feature, how should they determine whether to respond via email or the messaging function? Discuss factors they should consider.	(7)
Q4(B)	Describe the process of configuring an email account on an Android device. Include steps for both Gmail and a generic email account.	(7)
Q5	**MCQ Attempt any seven out of twelve.(2 Marks each)**	**(14)**

P.T.O

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1) What is the primary programming language used for Android app development?
   A) Python B) Java C) C++ D) JavaScript
2) Which file format is used for Android application packages?
   A) .zip B) .tar C) .apk D) .exe
3) Which Android component is responsible for displaying the user interface?
   A) Activity B) Service C) Broadcast Receiver D) Content Provider
4) What is the function of the AndroidManifest.xml file?
   A) To define the app's user interface layout
   B) To declare app components and permissions
   C) To manage app resources
   D) To handle background processing
5) Which Android component allows apps to run in the background?
   A) Activity B) Service C) Fragment D) View
6) What does an Intent in Android do?
   A) Manages app permissions
   B) Connects components and passes data
   C) Defines the layout for an Activity
   D) Initializes the app's database
7) Which of the following is NOT a valid Android lifecycle method?
   A) onCreate() B) onPause() C) onStop() D) onDestroyView()
8) What is the role of Gradle in Android development?
   A) It is a user interface design tool.
   B) It manages dependencies and builds the app.
   C) It stores app data.
   D) It defines the app's lifecycle.
9) Which layout is best for creating a responsive UI that adapts to different screen sizes?
   A) LinearLayout B) RelativeLayout C) ConstraintLayout D) FrameLayout
10) Which method is called when an Activity becomes visible to the user?
    A) onStart() B) onResume() C) onCreate() D) onPause()
11) What is the purpose of a Content Provider in Android?
    A) To manage UI elements
    B) To share data between applications
    C) To handle background tasks
    D) To create notifications
12) Which tool is used to debug Android applications?
    A) Android Debug Bridge (ADB)
    B) Android Studio Emulator
    C) ProGuard
    D) Gradle

ALL THE BEST