



Instructions:

1. All questions are compulsory.
2. No doubts will be entertained during the exam.
3. Write the MCQs answers on the first page of your answer sheet.

Q1. Which of the following is true about the AndroidManifest.xml file? [1]

- | | |
|--|--------------------------------------|
| a. Defines the structure of the app's user interface | c. Stores data used by the app |
| b. Contains configuration information for the app | d. Manages resources used by the app |

Q2. What is the purpose of the onCreate() method in an Android activity? [1]

- | | |
|--------------------------------------|-------------------------------------|
| a. To initialize activity components | c. To display the activity's layout |
| b. To handle user interactions | d. To save the activity's state |

Q3. Which component is responsible for managing the navigation flow between different screens in an Android app? [1]

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|-------------|-----------|
| a. Activity | c. Intent |
| b. Fragment | d. Layout |

Q4. Which folder in the Android project structure contains all the layout files for the app's user interface? [1]

- | | |
|-------------|-----------|
| a. Drawable | c. Layout |
| b. Values | d. Res |

Q5. What is the purpose of the onResume() method in the Android activity lifecycle? [1]

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|---|---|
| a. To initialize the activity's layout | c. To save the activity's state. |
| b. To perform operations when the activity becomes visible. | d. To release resources used by the activity. |

Q6. Explain the concept of inheritance in Java and how it is used in Android development. [2]

Q7. What is polymorphism in Java? Explain run time and compile time polymorphism. [2]

Q8. Describe the lifecycle of an Android activity and explain the purpose of each lifecycle method. [2]

Q9. What are fragments in Android? Discuss their advantages and when to use them in app development. [2]

- ~~Q10.~~ Explain the purpose of the `onCreateView()` method in a fragment's lifecycle and how it differs from the `onCreate()` method of an activity. [2]
- ~~Q11.~~ How to create a virtual device in Android Studio. Discuss the advantages and limitations of using virtual devices. Explain how to connect physical devices for testing applications in Android Studio. [2]
- ~~Q12.~~ How do you handle user input validation in Android applications? Explain the error handling method for any mathematical calculation. [2]
- ~~Q13.~~ What is a constructor in Java? Explain different types of constructors and how they are used in Android development. [2]
- ~~Q14.~~ How many ways can methods be attached to a button and write its pseudo code? [2]
- ~~Q15.~~ What is an Intent, and why do we need it? Write its pseudo code. [2]
- ~~Q16.~~ What is the OOPs concept, and how does it make coding simpler? Discuss the main principles of the OOPs with examples. [2]
- ~~Q17.~~ Explain different types of layouts in Android. How is linear layout different from the relative layout? [3]