

061006T4ICT

ICT TECHNICIAN LEVEL 6

IT/OS/ICT/CR/11/6

DEVELOP MOBILE APPLICATION

July/August 2024



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. The paper consists of two sections: A and B
2. Answer ALL questions in Section A and any THREE from section B
3. Marks for each question are indicated in the brackets
4. A separate answer booklet will be provided
5. Do not write on the question paper
6. Candidates should answer the questions in English

This paper consists of FOUR (4) printed pages
Candidates should check the question paper to ascertain that
all pages are printed as indicated and that no questions are missing

SECTION A (40 Marks)

Answer ALL the questions in this section

1. During introduction to mobile application development unit, you come across various terms in the introduction stage. Define the following terms:
 - i. Activity. (2 marks)
 - ii. Service. (2 marks)
2. Mobile application navigation patterns are critical for providing a smooth user experience. Highlight FOUR common patterns used in mobile app design. (4 marks)
3. Lucy wants to upgrade her phone and has been advised to get one with an android application system. Highlight FOUR features she will have on her phone. (4 marks)
4. Android development environment uses several terms in its operations. What do you understand by the terms JDK and IDE? (4 marks)
5. You are tasked to develop and test a mobile application to perform mathematical calculations, List FOUR essential tools you will need for testing. (4 marks)
6. Layouts and Fragments are part of the terms used in mobile application development process, explain your understanding on the two terms. (4 marks)
7. With the knowledge acquired in class, explain strings.xml file with an example in mobile application. (4marks)
8. Debugging is an essential part of any development, and several techniques help identify and fix issues in your code. State FOUR debugging techniques in android development. (4 marks)
9. You are an application developer working on a project using Android Studio. Your task is to write code by utilizing various operators. During a code review session, your team encounters multiple instances where the “??” and “?” operators are used. Differentiate between the two Operators. (4 marks)
10. Safaricom Ltd is carrying out a routine upgrading on their mobile applications. List FOUR advantages this exercise will have. (4 marks)