



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN INFORMATION
TECHNOLOGY**

MAIN CAMPUS

CIT 314: MOBILE PROGRAMMING

Date: 21st June, 2017

Time: 3.30 - 6.30 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.



QUESTION 1: (30 MARKS)

- A) what are the advantages of Android? (4 marks)
 - B) Explain the Architecture of Android ? (4 marks)
 - C) What does the .apk extension stand for? (1 mark)

 - D) Differentiate a service from an activity? (4 marks)
 - E) Discuss the life cycle of an android service. (6 marks)
 - F) What happens in the broadcast receiver class? (2 marks)
 - G) An android project must have particular folders which are essential to its working. Which ones are these? (3 marks)
 - H) what are ht four essential states of an activity ? (4 marks)
 - I) When is the onStop() method invoked? (2 marks)
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QUESTION 2: (20 MARKS)

- A) Come up with an android application that performs mathematical operations on two numbers and displays their output. The same project should be able to increment numbers on every click of a button to a limit of 10 then decrements the same value to zero. (12 marks)
- B) Write a program showing how to create multiple activities in an android project. (8 marks)

QUESTION 3: (20 MARKS)

- A) Using any Object Oriented Programming has its main Pillars. Using the AWT package, write a program that displays two of these main pillars. (12 marks)
- B) What are the direct subclasses of an activity? (3 marks)
- C) What is the difference between Activity context and Application Context? (5 marks)

QUESTION 4: (20 MARKS)

- A. Make an app that contains two buttons with labels "Push Me" and "Click Me" and a TextView with text "This is a test". The buttons must not perform a function on clicking. (12 marks)

- B. What steps should one follow to perform a reading of data from a local file in android? (8 marks)

QUESTION 5: (20 MARKS)

- A) A bank needs to provide its customers with an android app that helps them track their account records. Which significant functions would you include in this application? List and explain each with a line of code that achieves the purpose of the explained item. A Diagram will do good. (12 marks)
- B) in each android project, the string file must be used. Write a program demonstrating its use. (8 marks)