



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021 / 2022 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER EXAMINATIONS
FOR THE DIPLOMA
IN
INFORMATION TECHNOLOGY**

COURSE CODE: DIT 093

COURSE TITLE: MOBILE APPLICATION DEVELOPMENT

DATE: 22/04/2022 **TIME:** 3:00p.m-4:30p.m

TIME: 1 Hour 30 Minutes

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

Question One (30 Marks)

- a) What is android? (2 marks)
- b) List **FOUR** (4) characteristics of mobile applications (4 marks)
- c) Provide the definition of the following terms (8 marks)
- Activity
 - Service
 - Broadcast receiver
 - Content provider
- d) Enumerate the **FOUR** (4) android application components. (4 marks)
- e) With the knowledge acquired in class, provide a brief explanation of the strings.xml file with and example (4 marks)
- f) What do you understand by the term JDK? (2 marks)
- g) Briefly discuss **THREE** (3) types of layout managers used in android application development (6 marks)

Question Two (20 Marks)

- a) What do you understand by the following terms? (6 marks)
- Layouts
 - Fragment
 - Views
- b) Mobile technology is certainly receiving a lot of attention in the IT world as well as the general business world right now. It seems everyone is executing a mobile strategy, designing a mobile app, or worrying about managing mobile devices. Discuss **FOUR** (4) reasons for this rapid growth. (8 marks)
- c) Explain **THREE** (3) features of an android application (6 marks)

Question Three (20 Marks)

- a) Android operating system is a stack of software components which is roughly divided into five sections and four main layers. Discuss this architecture with the help of a diagram. (14 marks)
- b) Provide a brief description of the resource types of the following directories (6 marks)
- res/
 - Drawable/
 - Layout/

Question Four (20 Marks)

- a) Write the xml code to produce a login page with the follow elements. (10 marks)
- Text field - name
 - Text field - password
 - Submit button
 - Cancel button.

b) Eliminate the errors in the following xml code (3 marks)

```
<? xml version="1.0" encoding="utf-8"?>
<resources
<color name="opaque_red">#f00
<string name="hello">Hello! </string>
</ >
```

- c) What do you understand by the term fragment? (2 marks)
- d) State any **TWO (2)** characteristics of a fragment (2 marks)
- e) Outline **THREE (3)** primary tools used by android developers (3 marks)

Question Five (20 Marks)

- a) With the help of a diagram, discuss the android life cycle (16 marks)
- b) Outline **FOUR (4)** components of an android application (4 marks)