

(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR FOUR SEMESTER TWO EXAMINATIONS**

**FOR THE DEGREE OF
BACHELOR OF SCIENCE COMPUTER
SCIENCE**

COURSE CODE : CSC 465E

COURSE TITLE : MOBILE APPLICATION PROGRAMMING

DATE: 19/01/2022 TIME: 02:00 P.M – 04:00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

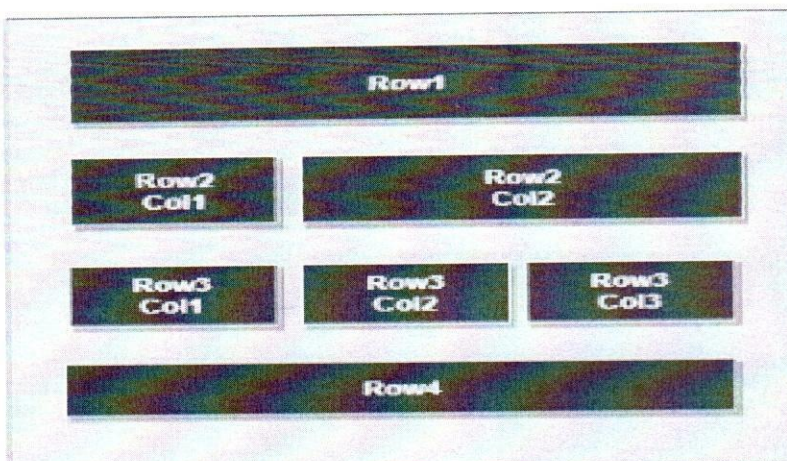
- a) List features of Android Operating System. [4Marks]
- b) Define Android Virtual Devices (AVD). [2Marks]
- c) Write the directory path where images are stored while developing Android application. [2Marks]
- d) List all attributes to develop a simple button. [4Marks]
- e) Write the syntax for Intent-Filter tag. [4Marks]
- f) Define services in Android operating system. [6Marks]
- g) Enlist the steps to publish the Android application. [4Marks]
- h) Discuss four characteristics of mobile applications. [4Marks]

QUESTION TWO [20 MARKS]

- a) Draw and explain android architecture in detail. [4Marks]
- b) Differentiate between JVM and DVM. [4Marks]
- c) Explain the activity life cycle. [4Marks]
- d) Discuss the need of permissions in Android. [4Marks]
- e) Describe the permissions to set system functionalities like Bluetooth and camera. [4Marks]

QUESTION THREE [20 MARKS]

- a) Describe the significance of SQLite database in Android. [4Marks]
- b) Explain any four UI Components of Android application. [8Marks]
- c) Write a program to display following output using suitable layout. [8Marks]



QUESTION FOUR [20 MARKS]

- a) Discuss the concept of Mobile Software Engineering. [4Marks]
- b) Explain the design considerations in Mobile Software Engineering. [6Marks]
- c) Describe the process of storing and retrieving data in Android environment. [6Marks]
- d) Discuss various user interfaces in mobile application. [4Marks]

QUESTION FIVE [20 MARKS]

- a) Security of any application is critical. Explain security measures that can be employed in android application. [6Mks]
- b) Describe how you will distribute your application after development. [4Mks]
- c) The end goal of mobile application development is a product that will give economic and social gain. Discuss how you will monetize your application. [6Mks]
- d) Discuss emerging issues in mobile application development. [4Mks]