



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2021/2022 ACADEMIC YEAR

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF
BSc. IT, BS. SOFTWARE ENGINEERING, BSc. MATHEMATICS & COMPUTER
SCIENCE, BSc. COMPUTER TECHNOLOGY,
BSc. COMPUTER SCIENCE**

SIT 302– MOBILE APPLICATION DEVELOPMENT

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answers question one and any other question.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

QUESTION ONE (30 MARKS)

- a) Differentiate between view and view Group as used in Android environment. (4 mks)
- b) Explain four sources of data for a mobile application. (4 mks)
- c) With critical information at stake, mobile app developers need to do everything they can to protect their users and clients. Explain four ways developers can build security into their apps. (4 mks)
- d) Illustrate android Multimedia framework which provided an engine for audio and video recording and playback. (4 mks)
- e) Describe for essential states of an activity in android application. (4 mks)
- f) The location object represents a geographic location which can consist of latitude, longitude, time stamp and other information such as bearing, altitude and velocity. Explain any three important methods which you can use with location objects (6 mks)
- g) Describe four main components of Android user interface controls. (4 mks)

QUESTION TWO (20 MARKS)

- a) Android Architecture is made up of four key components. Explain the function of each component. (8mks)
- b) The nature of the business objectives and overall product goals dictates on whether to use the web or native application development approach. Describe the circumstances which each of these mobile applications development approached may be suitable and the advantages and disadvantages of each approach. (6 mks)
- c) Describer any four different data storage methods on android. (6 mks)

QUESTION THREE (20 MARKS)

- a) Discuss two integration techniques of mobile applications to the web. (4 mks)
- b) Describe any two dialogue boxed that are supported in Android. (4 mks)
- c) Explain any three valid revenue models developers can choose that are appropriate for mobile application. (6 mks)
- d) Elaborate the core phases of the modern mobile app development life cycle. (6 mks)

QUESTION FOUR (20 MARKS)

- a) Explain three tests done before finally publishing mobile applications. (6 mks)
- b) Examine any three types of requirements declared in mobile app requirement document. (6marks)
- c) Describe four design issues to be considered during development of mobile application. (8marks)