

**PAN AFRICA CHRISTIAN UNIVERSITY
EXAMINATIONS PAPER**



EPAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: BIT 305

COURSE TITLE: MOBILE APPLICATION DEVELOPMENT

EXAM DATE: AUGUST, 2021

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Three questions in Section **B**.
- Write only your **student number** on the answer booklet provided.
- None programmable calculator permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A

(Answer ALL questions in this section)

QUESTION ONE

a) Normally, in the process of carrying out a screen reorientation, the Android platform tears down the foreground activity and recreates it, restoring each of the view values in the activity's layout. In an app you're working on, you notice that a view's value is not being restored after screen reorientation.

- i) Describe what could be a likely cause of the problem that you should verify, at a minimum, and about that particular view. **[4 Marks]**
- ii) Explain if it is possible to create an activity in Android without a user interface.

[3 Marks]

b) Assume you are developing an Android app which consists of two activities, MainActivity and SecondActivity. The following image includes part of MainActivity code. This file includes a button that has id "Mybutton". Explain the functionality of the following code snippet if executed after the user taps on the button (id: Mybutton). **[3 Marks]**

```
Mybutton.setOnClickListener{  
    var intent=Intent(this, SecondActivity::class.java)  
    startActivity(intent)  
}
```

SECTION B (Answer Any Three (3) Questions)

QUESTION TWO

a) Discuss the process of publishing an app to either App Store or Google Play Store, including the core things to consider when doing this, and steps do you have to take. Make sure to discuss self-signing with Android or provisioning profiles with iOS.

[5 Marks]

- b) Describe the concept of using core persistent data on both iOS and Android. Touch on the similarities and differences between the platforms, specifically highlighting the advantages on each.

[5 Marks]

QUESTION THREE

- a) Describe code that will rotate animation clockwise and anti-clockwise on image called chess from drawable folder when the two labeled buttons are clicked. Explain all variables used including the id of the imageview.

[6 Marks]

- e) Assuming you have asked to do an interface for the following scenarios. Identify **TWO** kinds of the layout would be appropriate and give a reason for your answer

[4 Marks]

- i) Food ordering System
- ii) Google Map App

QUESTION FOUR

- a) Write a code snippet that would convert our PAC University website into application.

[4 Marks]

- b) Charles is developing an application; he opts to use a realm for data storage. Discuss **THREE** factors reasons that may have informed his decision for data storage.

[6 Marks]

QUESTION FIVE

- a) Company A recently bought company B. The two companies want to integrate their applications. Discuss **THREE** challenges that the integration will face. For each challenge give a concrete example.

[6 marks]

- b) Look up the app publication policies for Android and iOS. Describe any similarities and differences between them.

[4 Marks]

QUESTION SIX

Write the code an android application that would display the following output interface in Android studio. Separate code for different layout and activity to display the country list.
[10 Marks]

