

**PAN AFRICA CHRISTIAN UNIVERSITY
EXAMINATIONS PAPER**



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION-SEPTEMBER-DECEMBER 2019

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: BIT 305

COURSE TITLE: MOBILE APPLICATION DEVELOPMENT

EXAM DATE: TUESDAY 3RD, DECEMBER, 2019

DURATION: 2 HOURS

TIME: 0900HRS-1100HRS

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 1:

a) Describe the following terms;

i) Content provider **(2 marks)**

ii) Singleton Class **(2 marks)**

b) i) Compare and contrast native mobile app design versus web app design

(4 marks)

ii) Evaluate **TWO** merits of android runtime environment. **(2 marks)**

c) How many dialog boxes do support in android? Explain them. **(4 marks)**

d) Explain the scope of each code as used below. **(4marks)**

```
public class MainActivity extends AppCompatActivity {  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
}
```

e) Explain **THREE** types of notifications available in android **(6 marks)**

f) Give **TWO** roles of a content provider in android. **(2 marks)**

g) Discuss **TWO** different storages available in android giving each an example.

(4 marks)

SECTION B

(Answer any THREE (3) questions in this section)

Question 2:

- a) Compare the wrap content and match parent when designing layout **(2 Marks)**
- b) Give **FOUR** major usability challenges with mobile development. **(4 Marks)**
- c) Highlight FOUR major concerns you have when developing for mobile phones as opposed to when developing for computers. **(4 Marks)**

Question 3:

- a) Differentiate between option menus from context menus. **(2 Marks)**
- b) Differentiate a *content provider* from a *broadcast receiver*. Describe a scenario where you would use each **(4 Marks)**
- c) Explain how an activity that is destroyed differs from one that is stopped **(4 Marks)**

Question 4:

- a) Show how you would navigate from one activity to another using an Intent **(4 Marks)**
- b) State any **TWO** methods associated with the WebView class. **(2 Marks)**
- c) Amy is developing an application she opts to use a webserver for data storage. Discuss any **TWO** factors reasons that may have informed her decision for data storage. **(4 Marks)**

Question 5

- a) Using code below **(6 Marks)**
Intent i = **new** Intent(getApplicationContext(), ActivityTwo.class);
StartActivity(i);
- i) Identify the role of the code from above
ii) Why intent is used? Critique your reason
iii) Differentiate explicit from implicit intent
- b) Evaluate any **TWO** types of layout, citing relevant roles and its impact when designing an application. **(4 Marks)**

Question 6:

- a) Justify any **THREE** advantages of using Android over iOS platform. **(3 Marks)**
- b) Mention any **THREE** disadvantages of using threads in App development **(3 Marks)**
- c) State **TWO** languages that supports android application development other than java. **(2 Marks)**
- d) Explain how you will add icon in your application. **(2 Marks)**

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