

**PAN AFRICA CHRISTIAN UNIVERSITY
EXAMINATIONS PAPER**



**PAN AFRICA CHRISTIAN UNIVERSITY
BACHELORS OF INFORMATION COMMUNICATION TECHNOLOGY
END OF TERM EXAMINATION**

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY
COURSE CODE: BIT/BBIT305
CAMPUS: ROYSAMBU
COURSE TITLE: MOBILE APPLICATION DEVELOPMENT
EXAM DATE: THURSDAY
TIME: START HOUR – END 5:30-8:30 HRS

INSTRUCTIONS

- This exam carry a total of SIX Questions of [10 Marks Each]
- Section One (I) is compulsory.
- Answer any 3(Three) Questions from Section Two (II)
- Read all questions carefully before attempting.

SECTION A
(Answer ALL questions in this section)

Question One (10 Marks)

- a) Explain importance of user interaction and hardware consideration in Mobile application development (2 Marks)
- b) With the aid of Waterfall Development Methodology, list the first 3 step process of mobile app development (3 marks)
- c) API is commonly used in Mobile application development, state its importance (1 marks)
- d) Web error 404 in mobile application development, give a reason for the display (1 marks)
- e) Differentiate between UI and UX (2 marks)
- f) JDK is commonly used in mobile application, explain its importance (1 mark)

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

Question One (10 Marks)

- a) Describe five activity states in android framework . (5 marks)
- b) A marketing company would like to develop an application which will be broadcasting messages, write a code to display.
 - (i) SUBMIT (3 marks)
 - (ii) DISPLAY (2 marks)

Question Two (10 Marks)

- a) What do you understand by the following terms?
 - i. Fragment (1 marks)

- ii. Views (1 marks)
- iii. State and explain the four android application components. (4 marks)
- iv. Below code is an extract from android studio environment, Explain which button is are the codes to be attached to. (2 Marks)

```
dialog = new Dialog(this);
dialog setContentView(R.layout.custom_dialog);
dialog.setTitle("Custom Dialog");
Button cancel_btn = (Button) dialog.findViewById(R.id.cancel_btn);
dialog_btn.setOnClickListener(new View.OnClickListener()
{
    // Perform button logic
    dialog.dismiss();
})
```

- v. Enumerate the four android application components (2 Marks)

Question Three (10 marks)

a) Provide definition of the following terms

- i. Activity (1 marks)
- ii. Service (1 marks)
- iii. Broadcast receiver (1 marks)
- iv. Content provider (1 marks)

b) Discuss the motivation of building your own mobile app? (2 marks)

c) State two terminology checks used in mobile app development design (2 marks)

d) Write a code that will display submit button in android studio (2 marks)

Question Four (10 marks)

- a) Provide a brief description of the resource types of the following directories
- i). res/ (1 marks)
 - ii) Drawable/ (1 marks)
 - iii) Layout/ (1 marks)
- b) Mobile application uses Frameworks to develop application, what is framework in mobile app development (2 marks)
- c) Name any 3 non-functional requirement in android app development (3 marks)

Question Five (10 Marks)

- a) write java codes to show how the following classes are inherited from their main class in android programming.
- i. Services (2 marks)
 - ii. activity (2 marks)
 - iii. broadcast receiver (2 Marks)
 - iv. content providers (2 Marks)
 - v. fragments (2 Marks)

Question Six (10 Marks)

- a) Write the android hello world program (3 marks)
- b) Suppose you need to execute a mobile application testing, describe the technical criteria you will consider while selecting a test automation tool? (5 Marks)
- c) Describe two types of Mobile Apps by Technology (2 Marks)