SECTION A - (40 MARKS) - ANSWER ALL QUESTIONS IN THIS SECTION

1. What is android.

2. List four characteristics of mobile applications.

3. Mobile devices have become an indispensable part of modern life. providing a wide range of functionalities and conveniences. Describe two limitations associated with mobile devices

4. Describe the difference between native and hybrid mobile applications.

5. Briefly describe two popular mobile development frameworks.

6.Name three essential tools used in mobile app development and explain their functions.

7. List the four stages of the mobile development lifecyele.

8. When designing a mobile application, what are the two key factors to consider for optimal user experience?

9. Briefly explain two different navigation patterns commonly used in mobile applications.

10. The androidmanifest.ml file is an essential component of an android application. Explain three functions of android manifest file.

11. Write an xmi code to create a login page with the following elements.

Text filed - name for the user name

Next page button

12. Identify and describe the different types of resources defined in xml in an android project.

13. List popular mobile development frameworks.

SECTION B - CHOOSE ANY THREE QUESTIONS (60 MARKS)

Question one

a) Outline the four main stages of the mobile development lifecycle (MDLC) and briefly explain the key activities involved in each stage.

b) Write a code extract showing how each of the following classes are inherited from their main classes in android programming.

Services

Content providers

Broadcast receivers

c) List and explain three reasons why businesses might choose to develop a mobile application.

Question two

a) Android architecture is made up of four key components. With aid of illustrative diagram. describe the core android file system architecture.

b) Differentiate activities from services in the android development.

c) Identify four main elements of xml file as found in android applications.

d) Explain the main two steps in setting up an android powered device for application development.

Question three

a) Describe five android layout types, indicating the application of each type.

b) Android applications include components that may be classified into four categories. Name and briefly describe those categories.

c) Discuss two emerging challenges of publishing mobile applications.

d) What is an android emulator?

Question four

a) Distinguish between Native and Hybrid mobile applications. Mention two advantages and two disadvantages of each type.

b) What are some critical aspects to consider when designing a mobile application's architecture to ensure optimal performance and user experience?

c) In your experience, what are some of the common challenges for developers during mobile app creation.