PAPER ID-420208

Subject Code: KCA044

Roll No: | | | | | | | | | | | | | |

MCA
(SEM IV) THEORY EXAMINATION 2021-22
MODERN APPLICATION DEVELOPMENT

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2x10 = 20

Qno	Questions	CO
(a)	Explain Null Safety in Kotlin	1
(b)	Describe the use of Annotations in Kotlin	1
(c)	What are Layouts in Android?	2
(d)	What is Intent and its types?	2
(e)	Describe type of data storage mechanism in Android	3
(f)	Explain jetpack components in Android	3
(g)	Describe Coroutines in Android	4
(h)	Describe the role of JSON in Android Application	4
(i)	Explain Firebase Components	5
(j)	Explain Singed and Un-Singed APK	5

SECTION B

2. Attempt any *three* of the following: 10x3 = 30

Qno	Questions	CO
(a)	What is higher-order function? Explain with proper program in Kotlin.	1
(b)	What is Activity? Explain proper lifecycle of Activity using neat and clean diagram.	2
(c)	What is Data Binding? Explain with proper example.	3
(d)	Explain the process of fetching data from server using Volley or Retrofit library in Android using JSON.	4
(e)	Describe the process of generating singed APK in android studio	5

SECTION C

3. Attempt any *one* part of the following: 10x1 = 10

Qno	Questions	CO
(a)	Explain lambda expression in Kotlin with proper example.	1
(b)	Explain Material Design and also explain how it is beneficial for layout designing in Android application development.	2

4. Attempt any *one* part of the following: 10x1 = 10

(a)	Explain MVVM architecture in detail with proper example	3
(b)	Write android program to fetch information from remote server using either volley or retrofit library.	4

5. Attempt any *one* part of the following: 10x1 = 10

(a)	Explain the process of publishing an Android App on Google Play Store step by step in details.	5
(b)	What is inheritance? Explain with example using Kotlin	1

6. Attempt any *one* part of the following: 10x1 = 10

(a)	Explain notification in Android with complete program in Kotlin	2
(b)	Write a CRUD app to store student's information in SQLite database in Android using Kotlin.	3

7. Attempt any *one* part of the following: 10x1 = 10

(a)	What is service? Explain how services are different from activity in Android.	4
(b)	What is sensor? Describe all sensor available in your android mobile phones.	5

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