**DEPARTMENT OF COMPUTER SCIENCE**

**MOBILE APPLICATION DEVELOPMENT (USING ANDROID)**

**SHORT COURSE EXAMINATION**

*This examination is intended to test your knowledge on the following areas on Android Application Development and it spans the duration of one (1) week:*

1. Intents
2. Fragments
3. Activities
4. MVVM (Model View ViewModel) Architecture
5. Shared Preferences
6. Theming
7. Multiple data sources

The application to be developed is a simple blog named **Scarlett.** The functionalities are as follows:

1. A user should be able to **sign in** or **create a new account** when the application is launched for the first time
2. An authenticated user should be able to:
3. See blog posts
4. Upload blog posts
5. Edit existing blog post only sent by himself / herself
6. View details about a blog post

When creating the application, the following activities or fragments should be noted:

1. Welcome / Splash
2. Login
3. Registration
4. Compose Blog
5. Blogs
6. Blog details

**NB:** All resources and mockup designs will be attached to this document. Kindly visit the resources and materials section of this document for more information on what to do.

The data sources for this application should be made up of: **Firebase** & **Room Persistence Library**.

*[100 marks]*

**RESOURCES & MATERIALS**

**Resources (Optional)**

https://gist.github.com/Quabynah-Codelabs/4238671a78c7a047aca1b000e03b3204

**WorkManager**

https://developer.android.com/jetpack/androidx/releases/work

https://developer.android.com/topic/libraries/architecture/workmanager/basics

**Room**

https://developer.android.com/jetpack/androidx/releases/room

**Lifecycle & ViewModel**

https://developer.android.com/jetpack/androidx/releases/lifecycle#declaring\_dependencies

https://developer.android.com/topic/libraries/architecture/lifecycle

**RecyclerView**

https://developer.android.com/jetpack/androidx/releases/recyclerview

**Navigation**

https://developer.android.com/jetpack/androidx/releases/navigation

**Swipe Refresh**

<https://developer.android.com/jetpack/androidx/releases/swiperefreshlayout>

**View Binding**

<https://developer.android.com/topic/libraries/view-binding>