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Question Paper Code: U5202

B.E./B.Tech. DEGREE EXAMINATION, NOV 2023

Fifth Semester

Computer Science Engineering

21UCS502 MOBILE APPLICATIONS DESIGN AND DEVELOPMENT

(Common to Information technology)

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. Suppose that there are two activities in an application named ActivityOne and ActivityTwo. Write a code to invoke ActivityTwo from ActivityOne. CO1-U
2. Distinguish between onCreate() and onStart() methods. CO1-U
3. What is Fragment? What are its types? CO1-U
4. Differentiate Implicit and Explicit Intents. CO1-U
5. How will you instantiate Location Manager object? CO1-U
6. What is meant by geocoding? CO1-U
7. Write down the code to send an SMS to another AVD? Suppose the AVD number is 2225. CO1-U
8. How we can use camera in Android? CO1-U
9. Write a code to fetch the data using firebase CO1-U
10. What is a Cursor class? How it is used? CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Discuss about Android Lifecycle in detail. CO1-U (16)
Or
(b) Briefly explain about Android architecture in detail. CO1-U (16)

12. (a) Describe the process of starting a new Activity using an Intent. CO1-U (16)
 What are the essential components of an Intent for this purpose?
 Or
- (b) How do you implement a menu in an Android app? Describe the CO1-U (16)
 steps involved and the key components required.
13. (a) Create a Location distance tracking app that contains the CO2-App (16)
 following features:
- Display user current location on the map.(4)
 - Animate the user marker on a map when the current location changed.(4)
 - Calculate the distance with Google Distance Matrix API (8)
- Or
- (b) Write the Java code for the following CO2-App (16)
- Create a new Where Am I project with a Where AmI Activity. This example uses the GPS provider, so you need to include the uses-permission tag for ACCESS_COARSE_LOCATION in your application manifest.(8)
 - Override the on Create() method of the Where AmI Activity to get a reference to the Location Manager. Call get Last Known Location() method to get the last known location(8)
14. (a) Charles wishes to create a dedicated application for CO2-App (16)
 alerting/notifying the user whenever he receives the message. Also enable him to customize the notification option to enable and disable based on his needs, also to setup the tone for alert/notify him upon receiving a message
 Or
- (b) Develop an android application that captures image from a CO2-App (16)
 camera by defining a file provider, granting permissions to URI, storage and camera and manage result and show image through image view.

15. (a) Imagine you are developing an Android app to manage a library's book collection. You need to create an SQLite database to store information about books and authors. CO2-App (16)

Or

- (b) Create your own content provider to add student's record in a database and to ask content provider to give us those records back. CO2-App (16)

