Register Number:……..

KUMARAGURU
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B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Fifth Semester

COMPUTER SCIENCE & ENGINEERING

U18CSI5205**:** Mobile Application Development Using Android

COURSE OUTCOMES

CO1: Explain mobile application development and Android development environment.
CO2: Design app user interface.
CO3: Describe Mobile Databases.
CO4: Explain programming with different sensors.
CO5: Explain different wireless network programming in Android.
CO6: Explain the testing and distribution of mobile applications.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Explain the concept of the "Mobility landscape."	CO1	[K_2]
2.	Compare the onCreate() and onDestroy() methods in the Android Activity lifecycle.	CO2	[K_2]
3.	Compare implicit and explicit intents for starting activities.	CO2	[K_2]
4.	What are threads in the context of mobile app development, and why are they important?	CO2	[K_1]
5.	What is the purpose of monitoring Wi-Fi connectivity on a device, and where can you typically access active Wi-Fi connection details?	CO5	[K_1]
6.	Mention the role of proximity sensor.	CO4	[K_2]
7.	What is the role of the SQLiteOpenHelper class in creating and managing a SQLite database in Android?	CO3	[K_1]
8.	Compare Android Activity and Service.	CO3	[K_2]
9.	Why is versioning important in Android app development?	CO6	[K_1]
10.	What is the primary purpose of unit testing in Android development?	CO6	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Illustrate a step-by-step process for setting up an emulator for mobile app development.	6	CO1	[K_2]

	b)	Explain the architecture of the Android platform with neat diagram.	10	CO1	[K_2]
12.	a)	Develop mobile application to demonstrate starting an activity from one activity to another and message passing using intents. (Write the complete part of MainActivity.java, android manifest and activity_main.xml).	8	CO2	[K_3]
	b)	Develop mobile application to demonstrate the concept of threads using extends and implements. (Write the complete part of MainActivity.java and activity_main.xml).	8	CO2	[K_3]
13.	a)	Illustrate the Android Activity lifecycle, including its various states. Describe the significance of each state and provide examples of when an Android app might transition between these states.	8	CO3	[K_2]
	b)	Describe the purpose of Android notifications and how they contribute to user engagement. Provide a step-by-step outline of the process of creating and displaying a notification in an Android app.	8	CO2	[K_2]
14.	a)	Create a Student CRUD (Create, Read, Update, Delete) application with fields for student name, student roll, mobile number, department, and CGPA using SQLite. (Write the complete part of MainActivity.java and activity_main.xml)	12	CO3	[K_5]
	b)	Discuss the advantages of using SQLite as a mobile database.	4	CO3	[K_2]
15.	a)	Explain the process of scanning for Wi-Fi hotspots on an Android device. Describe the information that is typically retrieved during a scan and how it can be useful for users.	8	CO5	[K_2]
	b)	Discuss the key details included in an active Wi-Fi connection, such as SSID, signal strength, and security type. How can this information be accessed and utilized by applications?	8	CO5	[K_2]
16.	a)	Describe the process of distributing an Android app on Google Play Store, including the requirements and guidelines.	8	CO6	[K_2]
	b)	Apply the knowledge of versioning and signing to package an Android app for distribution on mobile marketplaces.	8	CO6	[K_3]

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