Reg.No | | | | | | | |

SNS COLLEGE OF TECHNOLOGY

(Autonomous)

A

MCA- Internal Assessment –III (Dec 2023)

Academic Year 2023-2024(Odd) / ThirdSemester

19CAT701 –Mobile Application Development

Time: 1$^{1/2}$ Hours **Maximum Marks: 50**

Answer All Questions

PART - A (5 x 2 = 10 Marks)

		CO	BL
1	How multimedia playback is handled in Android?	CO4	Ana
2	Highlight various sensors available in Android OS.	CO4	Rem
3	What is use of Proximity alerts?	CO4	Und
4	Predict the role of AngularJS in IONIC framework	CO5	Ana
5	Examine the purpose of webview object in Android	CO5	Ana

PART - B (2 x 13 = 26,1 X 14 = 14Marks)

6	**(a)**	Evaluate the native hardware access capabilities in Android with sensor access	CO4	Ana
		(Or)		
	(b)	Illustrate directives and Services implemented in IONIC Framework	CO5	Ana
7	**(a)**	Design a mobile app for patient appointment request form to doctor using SQLite database	CO5	Ana
		(Or)		
	(b)	Analyze the location bases services offered by Android using Google Map services.	CO5	Ana

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8	(a)	It's Sarah's first time visiting a bustling city like Tokyo. She's excited to explore the vibrant streets and hidden gems, but she easily loses track of her location amidst the crowds. She desperately needs to find her way back to her hotel, but her phone battery is dying and she doesn't know enough Japanese to ask for directions. 1.How can location awareness technology be incorporated into a mobile app to help Sarah navigate unfamiliar territory and locate her hotel despite limited battery power and language barrier? 2. What features can be implemented to ensure Sarah's safety while exploring the city alone, leveraging the app's location awareness capabilities?	CO2	App
		(Or)		
	(b)	An educational app is being developed to help users learn a new language through interactive lessons and real-time audio/video recording features. Users can record themselves speaking phrases and compare their pronunciation to native speakers. The app also offers live tutoring sessions with language experts. **Challenge:** How can you implement efficient and accurate speech recognition technology within the app to analyze user pronunciation and provide feedback? **Solution:** Research and compare different speech recognition APIs available for mobile app development. Consider factors such as language support, recognition accuracy, and offline functionality.	CO4	App

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1	Justify why SQLite database is better option of Storing the data in Android	CO4	Ana
2	Classify the types of sensors available in Android devices	CO4	Ana
3	Define geocoding	CO5	Und
4	Examine the Ionic Grid system used for positioning the components on the page	CO5	Ana
5	Evaluate the features of SCSS in IONIC framework	CO5	Und

PART - B (2 x 13 = 26,1 X 14 = 14Marks)

6	**(a)**	Critique existing animation libraries and frameworks for Android.	CO4	Eva
		(OR)		
	(b)	Recommend improvements to the design of Location object or location awareness APIs.	CO4	Eva
7	**(a)**	Implement basic functionalities using HTML, CSS, and JavaScript within a hybrid mobile development framework.	CO5	App
		(OR)		
	(b)	Create a simple IONIC UI with a card and a button, utilizing appropriate CSS components for styling and layout.	CO5	App

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8	**(a)**	You're a developer working on a mobile app for tourists visiting a new city. The app utilizes location awareness to provide helpful information and suggestions based on the user's current location. Imagine a tourist, Sarah, is exploring the city and gets lost. Her phone battery is low, and she doesn't have access to Wi-Fi. How can your app utilize location awareness to help Sarah find her way back to her hotel or a safe location? **Consider:** What features can your app offer to help Sarah in this situation? How can location awareness be used to provide relevant information like nearby landmarks, public transportation options, or emergency services?	CO4	App
		(Or)		
	(b)	A popular live streaming app experiences a sudden spike in dropped live streams and audio/video glitches during a high-profile event. Users report buffering, freezes, and complete disconnects. The issue occurs across various device models and network conditions. Questions: As a developer, what steps would you take to diagnose the root cause of the live stream disruptions? How would you design a real-time monitoring system to identify and prevent future performance issues during live events?	CO5	App

8	**(a)**	You're a developer working on a mobile app for tourists visiting a new city. The app utilizes location awareness to provide helpful information and suggestions based on the user's current location. Imagine a tourist, Sarah, is exploring the city and gets lost. Her phone battery is low, and she doesn't have access to Wi-Fi. How can your app utilize location awareness to help Sarah find her way back to her hotel or a safe location? **Consider:** What features can your app offer to help Sarah in this situation? How can location awareness be used to provide relevant information like nearby landmarks, public transportation options, or emergency services?	CO4	App
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