Subject Code:- ACSAI0515 **Printed Page:-**Roll. No: NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA (An Autonomous Institute Affiliated to AKTU, Lucknow) **B.Tech** SEM: V - CARRY OVER THEORY EXAMINATION - APRIL 2023 **Subject: Mobile Application Development** Time: 3 Hours Max. Marks: 100 **General Instructions: IMP:** *Verify that you have received the question paper with the correct course, code, branch etc.* 1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice *Questions (MCQ's) & Subjective type questions.* 2. Maximum marks for each question are indicated on right -hand side of each question. **3.** Illustrate your answers with neat sketches wherever necessary. **4.** Assume suitable data if necessary. **5.** *Preferably, write the answers in sequential order.* 6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked. SECTION A 20 1. Attempt all parts:-1-a. MOM stands for (CO1) 1 (a) Mails oriented middleware (b) Message oriented middleware (c) Middleware of messages (d) Main object middleware SIM stands for? (CO1) 1-b. 1 (a) Subscriber Interface Module (b) Subscriber Identification Module (c) Subscriber Interface Modem (d) Subscriber Identification Modem Android is defined as an (CO2) 1-c. 1 (a) an operating system

- (b) a web browser
- (c) a web server

- (d) None of the above
- 1-d. Android is based on which of the following language? (CO2)

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- (a) Java
- (b) C
- (c) C++
- (d) None of the above
- 1-e. Which element is used to display Google map in your UI. (CO3)
 - (a) View
 - (b) Map
 - (c) MapView
 - (d) None of the above
- 1-f. Thingspeak can be defined as (CO3)
 - (a) Sensor
 - (b) Actuator
 - (c) Protocol
 - (d) Cloud environment
- 1-g. Name the first phone released that ran the AndroidOS? (CO4)
 - (a) Google gPhone
 - (b) T-Mobile G1
 - (c) Motorola Droid
 - (d) HTC Hero
- 1-h. Among these four, which database is natively supported by android? (CO4)
 - (a) Oracle
 - (b) SQLite
 - (c) MYSQL
 - (d) MSSQL
- 1-i. iOS stands for? (CO5)
 - (a) Internet Operating System
 - (b) Intelligent Operating System
 - (c) iPhone Operating System
 - (d) None of the above
- 1-j. Which framework does the class UIButton come from? (CO5)
 - (a) CoreGraphics

- (b) Foundation
- (c) OpenGLES
- (d) UIKit

2. Attempt all parts:-

2.a.	List Down the types of mobile applications. (CO1)	2
2.b.	Explain various sensors used in Android phone. (CO2)	2
2.c.	Difference between Mobile IoT and Cloud IoT. (CO3)	2
2.d.	Define the terms files, preferences, and Sqlite database. (CO4)	2
2.e.	Explain features of iOS. (CO5)	2
	SECTION B	30
3. Answer any <u>five</u> of the following:-		
3-a.	Explain the Key Drivers for Mobile Applications. (CO1)	6
3-b.	Design the Architecture of Android based native Mobile App. (CO1)	6
3-с.	Explain how you create first android application with example in relative layout. (CO2)	6
3-d.	Difference between Table Layout and Frame Layout with diagram. (CO2)	6
3.e.	Describe about the main Screen components of UI ? Explain any three of them. (CO3)	6
3.f.	Explain the best practices to be included for android application deployment. (CO4)	6
3.g.	Discuss the deployment issues of mobile applications in iPhone market place. (CO5)	6
	SECTION C	50
4. Answer any <u>one</u> of the following:-		
4-a.	List down the challenges to develop a mobile app and explain it in detail. (CO1)	10
4-b.	Differentiate between web application and mobile application. (CO1)	10
5. Answer any <u>one</u> of the following:-		
5-a.	Explain all types of inheritance used in android. (CO2)	10
5-b.	Explain the following things in the context of android device: Screen size, Screen density,	10
	Orientation, Resolution, Density-independent pixel. (CO2)	
6. Answer any <u>one</u> of the following:-		
6-a.	Discuss the concept of Mobile IoT and briefly explain its contribution in making	10

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a smart society? (CO3)

6-b. Define sensors and their types. How they are used in the MobileIoT? (CO3) 10

7. Answer any <u>one</u> of the following:-

- 7-a. Discuss testing and debugging of android application with suitable example. 10 (CO4)
- 7-b. Define android permissions. Explain types of android permissions.(CO4) 10

8. Answer any <u>one</u> of the following:-

- 8-a. Explain Swift, its features and with example of iOS app. (CO5) 10
- 8-b. Draw and design the architecture of iOS with its applications. (CO5) 10