

MASTER OF COMPUTER APPLICATIONS DEGREE EXAMINATION -
JUNE/JULY - 2022
THIRD SEMESTER
PAPER - MCA 305C : MOBILE APPLICATION DEVELOPMENT
(Under C.B.C.S. New Regulations w.e.f. 2020-2021)
(Common paper to University and all Affiliated Colleges)

Time : 3 Hours

Max. Marks : 70

PART - A

(Compulsory)

Answer any **FIVE** of the following questions. Each question carries **4** marks. **(5×4=20)**

1. a) What are the advantages of mobile devices in business applications?
- b) Write differences between Verification and Validation?
- ✓ c) In what way gestures are preferred than touch events.
- d) What is tampering?
- e) Compare Web Access for Novell iFolder 2.x and 3.
- ✓ f) Draw the mobile cloud architecture diagram.
- ✓ g) What do you mean by android activities and views?
- h) Define the role of GPS in Android devices and list out its features.
- ✓ i) What is Touch Frame work? Explain.
- ✓ j) What are the rules of UI?

PART - B

Answer **FIVE** questions, choosing **ONE** question from each Unit.

Each question carries **10** marks.

(5×10=50)

UNIT - I

- ✓2. What is Requirement Gathering? Explain in detail.

(OR)

3. Explain in detail the importance of delivery of Mobile Application?

UNIT - II

- ✓4. Explain in detail about embedded system design.

(OR)

5. Explain the role of quality constraints in mobile applications.

UNIT - III

- ✓6. Explain the impact of GPS on mobile applications.

(OR)

7. What are the challenges for mobile cloud computing? Explain.

UNIT - IV

- ✓8. Explain how to interact with UI with suitable example.

(OR)

9. Explain in detail about deployment and its tools.

UNIT - V

- ✓10. Explain Data Persistence using core data.

(OR)

11. Explain Location aware application using core location and map kit.

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PART - A

(Compulsory)

Answer any **FIVE** of the following questions. Each question carries **4** marks. **(5×4=20)**

1. a) What are some emerging trends in mobile application development and delivery?
- b) What are the market and business drivers for mobile applications?
- c) Explain the concept of an embedded system.
- d) What are some key principles to keep in mind when designing a mobile app UI?
- e) What is cloud computing, and what are the benefits of hosting applications in the cloud?
- f) What are some key considerations when designing a mobile app with web access capabilities?
- g) What is an activity in Android, and what is its role in the app development process?
- h) What is the Android Navigation Component, and how can you use it to implement navigation in an app?
- i) What are the advantages of using Objective C in iOS development?
- j) What is Core Data and how is it used in iOS development?

PART - B

Answer **FIVE** questions, choosing **ONE** question from each unit. Each question carries **10** marks. **(5×10=50)**

UNIT - I

2. Develop a validation plan for testing the functionality and usability of a mobile application.
- (OR)**
3. Identify and state the key requirements and validations necessary for developing a mobile application.

UNIT - II

4. Discuss the various design approaches for embedded systems, including top-down and bottom-up approaches. What are some advantages and disadvantages of each approach?

(OR)

5. Explain the importance of user-centered design in mobile application development. What are some key principles of user-centered design, and how can they be applied to mobile app design?

UNIT - III

6. Discuss the various methods of content delivery available for mobile applications, including streaming, progressive download, and offline access. What are some advantages and disadvantages of each method?

(OR)

7. Explain the steps involved in integrating GPS and social media networking applications.

UNIT - IV

8. How can you implement push notifications in an Android app? What components are involved in the process, and what are some best practices for implementing push notifications?

(OR)

9. Explain the packaging and deployment process for Android apps, including the different types of app distribution channels.

UNIT - V

10. Explain how to use iOS frameworks to handle background tasks. Explain about the steps involved in implementing multitasking in an iOS app.

(OR)

11. How would you integrate the calendar feature in an iOS social media app?
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