493-0306

M. Voc DEGREE III SEMESTER REGULAR EXAMINATION IN SOFTWARE APPLICATION DEVELOPMENT
NOVEMBER 2024

23-493-0306 Elective III - iOS APP DEVELOPMENT FUNDAMENTALS USING STORYBOARD FRAMEWORK

Time : 3 Hours

Maximum Marks : 50

Course Outcomes

CO1	Understand the fundamentals of iOS.
CO2	Apply the Cocoa framework for iOS development.
CO3	Apply User Controls in projects.
CO4	Create Story Board, MVC, Protocols and Delegates, View System, Controllers, and devise solution based on it.
CO5	Design and create Universal iOS application projects based on multi-scene storyboards, toolbars, and pickers.

BL- Bloom's Taxonomy Levels
(LI-Remember, L2- Understand, L3- Apply, L4- Analyse, L5-Evaluate, L6- Create)

PART A
(Answer *ALL* questions)

Q No.	Questions	Marks	BL	CO	PO
1	Briefly explain the purpose of *Interface Builder* and *Storyboard* in iOS app development.	2	L2	CO2	PO1
2	What is the difference between *touches* and *gestures* in iOS?	2	L1	CO3	PO3
3	Differentiate between global and main thread?	2	L3	CO5	PO2
4	What is *Info.plist*?	2	L1	CO1	PO1
5	Differentiate between *UITextView* and *UITextfield*.	2	L3	CO3	PO1

(5 x 2 = 10 Marks)

PART B
(Answer *ANY FOUR* questions)

6	Explain the differences between an *alert* and an *action sheet*. Provide a scenario where using an action sheet is preferable to an alert, and vice versa.	5	L3	CO3	PO5
7	Provide a scenario where you would use a *UINavigationController*, and discuss how it enhances user experience through navigation between different screens in an application.	5	L3	CO5	PO5

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8	Describe how to implement a contact list feature where users can view and select contacts using *UITableview*.	5	L4	CO4	PO4
9	Explain different value change event controls in Storyboard.	5	L3	CO3	PO5
10.	Differentiate *IBAction* and *IBOutlet*.	5	L4	CO2	PO1
11.	Explain Protocols and Delegates with respect to UITextView.	5	L4	CO4	PO4

(4 x 5 = 20 Marks)

PART C
(Answer *ANY TWO* questions)

13.	Explain how multi-scene storyboards are used to design complex iOS applications. Describe the process of passing data between scenes using segues, and provide an example of when and how you would implement this in a real-world application.	10	L5	CO5	PO5
14.	Using *UICollectionView*, design a photo gallery interface. Explain the steps you would take to set up the collection view, configure custom cells, and implement a grid layout. Discuss how you would manage data loading, especially for a high volume of images, and how you would handle user interactions like selecting and zooming in on individual photos. Justify why *UICollectionView* is more appropriate for this use case than *UITableView*.	10	L5	CO4	PO4
15.	You are building a simple iOS application using the Model-View-Controller (MVC) design pattern. Describe the roles of the Model, View, and Controller components in organizing the applications code. How would you implement MVC in Xcode? Provide an example of how MVC contributes to better code organization and maintainability in this application.	10	L5	CO1	PO1

(L1&L2- 18%, L3- % , L4- 40%, L5&L6 – 42%)

(2 x 10 = 20 Marks)

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