

BCA-6-01T-EC-C3: Introduction to Windows Mobile and IOS

Total Marks: 100
External Marks: 70
Internal Marks: 30
Credits: 4
Pass Percentage: 40%

INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any ten questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt any two questions each from the sections A and B of the question paper and any ten short questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

Course: Introduction to Windows Mobile and IOS	
Course Code: BCA-6-01T-EC-C3	
Course Outcomes (COs) After the completion of this course, the students will be able to:	
CO1	Gain proficiency in developing mobile applications for both Windows Mobile and iOS platforms, understanding the respective development environments, tools, and programming languages (e.g., C# for Windows Mobile, Swift for iOS).
CO2	Develop skills in designing user interfaces (UI) for both Windows Mobile and iOS applications, considering platform-specific design guidelines and best practices to create intuitive and user-friendly experiences.
CO3	Understand the process of deploying mobile applications on the Windows Mobile Store and Apple App Store, including the submission and review processes for each platform.
CO4	Explore techniques for achieving cross-platform compatibility, either through platform-specific development or by using cross-platform frameworks, allowing the creation of applications that can run on both Windows Mobile and iOS.

CO5	Learn about the lifecycle management of mobile applications on Windows Mobile and iOS, including topics such as app states, background processing, and handling interruptions to create responsive and efficient applications.
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Detailed Contents:

Module	Module Name	Module Contents
Section-A		
Module I	Development Environment	Development Environment: Introduction to Visual Studio, Advantages of Using Visual Studio, Setting Up Development Environment, Hello World- First Windows App, Simulators in Windows, Emulators and Debugger
Module II	Introduction to C#	Introduction to C#: Net Framework, C# (C Sharp), Basics of C# language, Keywords, Variable and Datatypes, Operators, Control Statements, Introduction to Classes, Methods, Properties, Constructors and Destructors, Model View Controller (MVC)
Section-B		
Module III	Integrating with Web Services in Windows Mobile	Integrating with Web Services in Windows Mobile: Web Services in ASP.NET, Building the Web Services, Discovering and Manipulating a Device, Functions, Multi-Threading in Windows Mobile: Drawbacks of Multi-Threading, Thread Synchronization, UI Threads
Module IV	Storage in iOS	Storage in iOS: Introduction, User Defaults /SQLite/Core Data, Usages and Application of Core Data , Integrating with Web Services in iOS: Data Consumption, Functions, Multi-Threading in iOS: Categories of Thread, Multithreading Models, Thread Synchronization, UI Threats, Background Threads Interaction with Camera in iOS: Introduction to Camera, Interaction with Camera Hardware, Image Capturing

Books

<ol style="list-style-type: none"> 1. Matt Neuburg “Programming iOS 14” 2. Matthijs Hollemans “iOS Apprentice” 3. Charles Petzold “Programming Windows® Phone 7” 4. Christian Nagel, Jon D. Reid, et al. “Professional C# 9 and .NET 5” 5. Paris Buttfield-Addison, Jon Manning, and Tim Nugent “Learning Swift: Building Apps for macOS, iOS, and Beyond”
