IT-AD02 : ADD-ON DIPLOMA IN Microsoft .NET FRAMEWORK

Objective: The goal of this course is to help application developers understand the Microsoft .NET Framework. In addition to offering an overview of the .NET Framework and an introduction to key concepts and terminology, the course provides a series of labs, which introduce and explain .NET Framework features that are used to code, debug, tune, and deploy applications.

Eligibility: Passed 10+2 examination and proficiency in computer Programming (C language) and Database Management System.

Reservation: SC/ST/OBC as per university rules.

Duration: One year part time, 80 hrs of teaching

Fee: Regular students from Constituent colleges: Rs 2000/- for students of courses where add-on courses are compulsory, Rs 2500/- for others. Students from other institutions: Rs 3000/-

Seats: Thirty. The course will be offered only against admission of a minimum of 15 candidates

Examination: Examination will be conducted by a board consisting of an internal examiner and an external examiner on the basis of a MCQ on-line /off-line test of 1 hr duration (50 questions, 100 marks) and practical test of 3hrs (100 Marks). Total marks of the examination will be 200. Rs 200/- per candidate will be collected by the computer center towards the MCQ based OMR/Online test in addition to the university examination fee.

In order to eligible for the Diploma, candidate is required to score 50% of the total marks. Those who fail to get 50% marks will be required to reappear in the examination as and when conducted by the university. A Certificate will be awarded instead of Diploma to the candidates who are allowed to take this course independently, not as an Add-on course

Syllabus

Microsoft .NET FRAMEWORK

Overview of the Microsoft .NET Framework: Overview of the Microsoft .NET Framework, Overview of Namespaces **Introduction to a Managed Execution Environment:** Writing a .NET Framework Application, Compiling and Running a .NET Framework Application

Creating simple console applications in Visual Basic .NET., Explaining how code is compiled and executed in a managed environment, Explaining the concept of garbage collection.

Working with Components: An Introduction to Key .NET Framework Development Technologies, Creating a Simple .NET Framework Component, Creating a Simple Console Client, Creating an ASP.NET Client

Deployment and Versioning: Introduction to Application Deployment, Application Deployment Scenarios

Common Type System: Introduction to the Common Type System, Elements of the Common Type System, Object-Oriented Characteristics

Working with Types: System.Object Class Functionality, Specialized Constructors, Type Operations, Interfaces, Managing External Types

Strings, Arrays, and Collections: Strings, Collections Defined, .NET Framework Arrays, .NET Framework Collections

Delegates and Events: Delegates, Multicast Delegates, Events, When to Use Delegates, Events, and Interfaces

Memory and Resource Management: Memory Management Basics, Non-Memory Resource Management, Implicit Resource Management, Explicit Resource Management
Optimizing Garbage Collection
Data Streams and Files:Streams. Readers and Writers, Basic File IO

Internet Access: Internet Application Scenarios, The WebRequest and WebResponse Model, Application Protocols,Handling errors,security, best practices Serialization: Serialization Scenarios and attributes,Object graph,Serialization process,custom serialization,security issues Remoting and XML Web Services: Remoting, Remoting Configuration Files,XML Web Services

Reference Books

1. Applied Microsoft .NET Framework by Jeffrey Richter
2. Microsoft .NET Framework 1.1 Class Library Reference Volumes 1-4: System, Paperback, Microsoft Press,