

Department of Computer Science, Shri Pundlik Maharaj Mahavidyalaya Nandura (Rly)

Syllabus

Class- B.Sc-III, Sem-V

Subject- Computer Science.

Net Technology and java Programming

Unit I: Introduction to .NET Framework: NET framework, MSIL, CLR, CLS, CTS, Namespaces, Assemblies The Common Language Implementation, Assemblies, Garbage Collection, The End to DLL Hell - Managed Execution

Unit II: Introduction to visual programming: Concept of event driven programming - Introduction to VB.Net environment, The .NET Framework and the Common Language Runtime. Building VB.NET Applications, The Visual Basic Integrated Development - Basic Language - Console application and windows application, Data types, Declaring Variables, scope of variables, operators and statements.

Unit III: Decisions and loop : Making Decisions with If . . . Else Statements, Using Select Case, Making Selections with Switch and Choose, Loop statements - Do Loop, for, while - The With Statement - Handling Dates and Times - Converting between Data Types - Arrays - declaration and manipulation - Strings & string functions - Sub Procedures and Functions.

Unit IV : Introduction to JAVA : History and evolution ,Feature, JDK, JVM, Difference between C++ and Java, Structure of Java Program, Keywords, Variable, Data types and Literals, Operators Control of Flow, (Selection Statements, Iteration Statements),Command Line Argument, One dimensional and two dimensional array

Unit V : Classes and inheritance: Class, Object, Method, Overloading Method, Constructor, Constructor Overloading, this Keyword, Inheritance: Introduction to Inheritance, Super, Multilevel Hierarchy, method overriding, Abstract class, Using Final (variables , methods and classes).

Unit VI : String, Package and Interface: String: String operation, String comparison, Searching and modifying string, Package: Package concept, Defining Package, Finding Package, Java In-built Packages Interface: Interface concept, Defining, and Implementing of Interface.

Department of Computer Science, Shri Pundlik Maharaj Mahavidyalaya Nandura (Rly)
Syllabus

Books Recommended:

- 1) .NET Framework, OREILY Publication.
- 2) Steven Holzner, Visual Basic .NET Black Book
- 3) Rebecca Riordan, VB.NET for Developers, Keith Franklin, SAMS
- 4) Jason Beres, Sams Teach Yourself Visual Studio .NET 2005 in 21 Days,
- 5) Jesse Liberty, Learning Visual Basic .NET
- 6) The Complete Reference JAVA2 by Herbert Schildt (Tata McGraw)
- 7) The Complete Reference JAVA by Patrik Noughton
- 8) Programming with JAVA - A Primer : By E.Balguruswamy (Tata McGraw)
- 9) Programming in JAVA : By S.S.Khandare (S.Chand)
- 10) Teach Yourself 'Java' in 2 Hrs : By Sams.
- 11) Java for You : By P. Koparkar Practical : Minimum

Practical base on

A: Unit II and Unit III (Minimum 8 practical)

B: Unit IV, Unit V and Unit VI (Minimum 8 practical)

The Examination in Computer Science of Sixth Semester shall comprise of one theory paper of 80 Marks of three hours duration and internal assessment of 20 Marks.

The practical examination will be of 4 Hrs. duration and carry 50 Marks.

The distribution of mars for practical examination is as under:

1. Program writing / execution (on group A & B) : 30 Marks
2. Practical record : 10 Marks
3. Viva Voce : 10 Marks

Total 50 Mars