

N.V.M. Shikshan Mandal's

Kamal tai JamaKar mahil a mahavidyal aya,
parbhani.

Syllabus for B.VOC IT (Software Development)

Second Year

With effect of
Academic 2015-16

Semester III

| General Education | | | | Skill Component | | | |
|-------------------|-----------------------|--------|----------|-----------------|---------------------------------------|--------|----------|
| Paper Code | Paper Name | Credit | Hrs/week | Paper Code | Paper Name | Credit | Hrs/week |
| BVT301 | Business Statistics | 6 | 6 | BVT303 | Object Oriented Programming using C++ | 3 | 3 |
| BVT302 | Environmental Studies | 6 | 6 | BVT304 | Visual Programming with VB.NET | 3 | 3 |
| | | | | BVT305 | Network & Internet Applications | 3 | 3 |
| | | | | BVT 306 | Database Management System | | |
| | | | | BV P301 | VB.NET LAB | 2 | 2 |
| | | | | BVP 302 | DBMS LAB | 2 | 2 |
| | | | | BVP 303 | C++ PROGRAMMING LAB | 1 | 1 |
| | | | | BVP 304 | Mini Project in VB.NET | 1 | 1 |
| | TOTAL | 12 | 12 | | TOTAL | 18 | 18 |

Semester IV

| General Education | | | | Skill Component | | | |
|-------------------|--------------------------------|--------|----------|-----------------|----------------------------|--------|----------|
| Paper Code | Paper Name | Credit | Hrs/week | Paper Code | Paper Name | Credit | Hrs/week |
| BVT401 | Management Information Systems | 6 | 6 | BVT403 | .NET FRAMEWORK WITH C# | 3 | 3 |
| BVT402 | E-Commerce | 6 | 6 | BVT404 | Core JAVA | 3 | 3 |
| | | | | BVT405 | PHP WITH MY SQL | 3 | 3 |
| | | | | BVT 406 | SYSTEM ANALYSIS AND DESIGN | 3 | 3 |
| | | | | BV P401 | C# .NET LAB | 2 | 2 |
| | | | | BVP 402 | JAVA LAB | 2 | 2 |
| | | | | BVP 403 | PHP LAB | 1 | 1 |
| | | | | BVP 404 | Mini Project in PHP | 1 | 1 |
| | TOTAL | 12 | 12 | | TOTAL | 18 | 18 |

SMISTER-III

BVT-301 BUSINESS STATISTICS

1. AIM:

- To develop the skill for applying appropriate statistical tools and techniques in different business situations.

2. OBJECTIVES:

- To enable the students to gain understanding of statistical techniques as are applicable to business.
- To enable the students to apply statistical techniques for quantification of data in business.

3. SYLLABUS

UNIT- I

Introduction: Meaning, definition, functions, objectives and importance of statistics. - Disturbance of statistics - Collection, classification, tabulation and presentation of data. Measures of central tendency and Measures of dispersion - relevance and applicability of each technique in business.

UNIT- II

Correlation: Meaning and definition - correlation and causation - Types of correlation - Methods of measuring correlation for ungrouped data - Karl Pearson's coefficient of correlation and its interpretation, Probable error - , Coefficient of determination Spearman's rank correlation - co-efficient of Concurrent deviation - Application of different measures of correlation in business.

UNIT- III

Regression analysis: Meaning and definition - Types of Regression - Regression lines - determination of simple linear regression - Regression equations and their application in business. Properties of correlation and regression co-efficients - Comparison of regression and correlation

UNIT- IV

Index numbers: Meaning and importance - Problems in construction of index numbers - Methods of constructing of index numbers - Simple aggregative, Average of Price relatives, Laspeyres's, Paasche's, Drobisch - Bowley's, Marshall-Edgeworth's and Fisher's ideal index numbers, Test of Consistency: Time Reversal Test and Factor Reversal Test. Chain Base Index Nos. Shifting of Base year. Cost of living Index and its use in determination of wages - Wholesale Price Index Number, Population index, inflation index, Operational indices - Sensex and Nifty.

UNIT- V

Time series analysis: Meaning and definition - components - Measurement of long term trend - Moving average method - Method of Least squares - Application in business.

4. REFERENCES

1. Gupta.S.P. Statistical Methods, Himalaya Publishing House, Mumbai.
2. Elhance.D.L .Fundamentals of Statistics, Kitab Mahal, Allahabad.
3. Gupta.B.N. Statistics - Theory and Practice, Sahitya Bhawan Publications, Agra.
4. Sanchetti D.C and Kapoor V.K .Statistics - Theory, Methods and Application, Sultan Chand & Sons
5. Nabendu Pal and Haded Sarkar S.A .Statistics - Concept and Application, PHI, New Delhi.
6. Agarwal.B.M. Business Mathematics and Statistics, Ane Books Pvt.Ltd., New Delhi.
7. Richard I. Levin and David S. Rubin, Statistics for Management, PHI

BVT-302 ENVIRONMENTAL STUDIES

1. AIMS:

- To create better understanding about the deteriorating condition of our environment among students

2. OBJECTIVES:

On completion this course, student should:

- Have better awareness and concern about current environmental issues
- Develop a healthy respect and sensitivity to environment
- Develop pride in social and environmental activism.

3. SYLLABUS

UNIT--I:

The Multi-disciplinary Nature of Environmental Studies: Definition, scope and importance, Need for Public Awareness, Ecology and Ecosystems: Definition of Ecology, Structure and function of an ecosystem, Producers, Consumers and Decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introduction, types, characteristics features and function of – forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystem(ponds, streams, lakes, rivers, oceans, estuaries)

UNIT--II:

Biodiversity and its conservation: Introduction, genetic, species and ecosystem diversity definition, value of biodiversity, biodiversity at global, national and local levels, India as a mega diversity nation, hot spots of biodiversity, threats to biodiversity – habitat loss, poaching of wild life, man wild life conflicts, endangered and endemic species of India, conservation of bio diversity in in-situ EX-situ

UNIT--III

Natural Resources: Air resources-features, composition, structure, air quality management, forest resources, water resources, mineral resources, food resources, energy resources, land resources, Environmental pollution: definition, air pollution, water pollution, marine pollution, thermal pollution, soil pollution, noise pollution, nuclear hazards, waste management, cleaner technologies, reuse and recycling, solid waste management, role of individuals to prevent pollution, pollution case studies, disaster management – floods, earthquake, cyclone and landslides

UNIT- –IV:

Social issues and the environment: From unsustainable to sustainable development, urban problems related to energy, water conservation, rain water harvesting, water shed management, resettlement and rehabilitation of people- it's problems and concerns, case studies, environmental ethics- environmental value relationships, environmental ethics and species preservation, climate change, global warming, acid rain, Ozone layer depletion, nuclear accidents and holocaust, case studies, waste land reclamation, consumerism and waste products, legislation to protect the environment, environmental protection act, air (prevention and control of pollution) act, water (prevention and control of pollution) act, wild life protection act, forest conservation act, environmental management systems (EMS), environmental information systems (EIS), P.I.L public hearing and role of NGOS, ISO 9000 and 14000, issues involved in enforcement of environment legislation, public awareness, environmental economics- environment and standard of living

4. Readings

- Kiran B Chokkas and others : —Understanding Environment □, Sage 2004
- P. Venugopala Rao, Environmental Science & Engineering, PHI
- Benny Joseph: Environmental Studies, Tata McGraw Hill
- Lester R Brown, Plan B: rescuing a Planet under stress and a civilization in trouble, Orient Longman
- Kurien Joseph & R Nagendran, Essentials of Environmental Studies, Pearson

BVT303 OBJECT ORIENTED PROGRAMMING USING C++

1. AIM:

- To introduce the student to the basic concepts of object orientation and impart skills in an industry standard object oriented language

2. OBJECTIVES:

On the completion of this course, the student will be able to

- _ Understand the concepts of classes and object
- _ Define classes for a given situation and instantiate objects for specific problem solving
- _ Reuse available classes after modifications if possible
- _ Possess skill in object oriented thought process

3. SYLLABUS

UNIT—I

Concept of Object orientation – why related data and methods should be kept as a single unit – comparison with procedural and structured programming – Classes and objects – data abstraction, encapsulation, inheritance, polymorphism, dynamic binding, message passing. Advantages of object orientation – reusability, maintenance, security, comfort in programming. Input and output streams in C++; Basic data types and declarations.

UNIT--II

Classes and objects in C++, access modifiers, static members, friend functions, Constructors and Destructors, polymorphism, Operator Overloading and type conversion, anonymous objects

UNIT—III

Inheritance- parent and child classes, private, public and protected inheritance, Multiple inheritance and multi-level inheritance, Virtual base classes. C++ and memory models – new and delete operators, Heap, dynamic objects.

UNIT—IV

Binding & Polymorphism: Early binding, Late Binding, Pointers to derived class objects, virtual functions, Pure virtual functions, abstract classes, object slicing, exception handling in C++: try, throw and catch.

4. REFERENCES

4.1 Core

- _ Ashok N. Kamthane, Object oriented Programming with ANSI & Turbo C++, Pearson 4.2
- Additional
- _ H M Deitel and P J Deitel, C++: how to program, Pearson Education
- _ Robert Lafore, Object Oriented Programming in Turbo C++, Galgotia Publications

BVT304 – Visual Programming with VB.NET

UNIT 1 Welcome to Visual Basic.NET

Windows versus Dos programming, Installing Visual Basic.NET IDE, Creating a simple Application. The Microsoft.Net Framework: .Net framework classes, Common Language Runtime, variables, constants, operators, Data types, working with string , Methods.

UNIT 2 Controlling the flow:

Making decisions, If statement, Select case, Loops. Working with data structures, Understanding Arrays, understanding Enumerations, understanding constants, structures, Working with collections and Lists, Building lookup table with Hash table, Advanced array manipulation

UNIT 3 Building Windows Applications :

Responding to Events, Building sample Application. Creating complex application, creating the toolbars Displaying Dialog Boxes- The message Dialog Box, The open dialog control, the save dialog control, the Font Dialog control, the color dialog control, the print dialog control.

UNIT 4 Creating Menus

Understanding Menu Features, creating menus, context menus. Debugging and Error Handling: Major Error types, Debugging, Error Handling

UNIT 5 Building Objects

Understanding objects, Building Classes Our First object, Constructor Inheritance ,The Framework Classes.

UNIT 6 Advanced Object –Oriented Classes

Building Favorites Viewer ,An Alternative favourite Viewer, Using shared properties And Metods , Understanding object oriented programming and Memory management

Suggested Readings:

1. Beginning VB.Net2003 willis, cross land and blair
2. ASP .Net and VB.Net Web Programming-Math J. Croush (pearson Edition)

1. SYLLABUS

UNIT--I:

Computer Network: Introduction, Uses of computer networks, Networks Hardware, Protocol hierarchies, OSI Model, TCP/IP reference model. Network fundamentals and Data Communication: Local Area Network(LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), Wireless Networks, Internetworks; Data Communication: Channel capacity. Transmission media twisted pair, coaxial cables, fibre-optic cables, wireless transmission, Multiplexing, switching, narrowband ISDN, broadband ISDN, ATM, High speed LAN's, The Web and HTTP; File Transfer: FTP; Electronic Mail in the Internet; DNS- The Internet's Directory Service.

UNIT- II:

Transport Layer- Introduction and Transport-Layer Services, Multiplexing and Demultiplexing, Connectionless Transport: UDP, Principles of Reliable Data Transfer, Connection-Oriented Transport: TCP, Principles of Congestion Control, TCP Congestion Control, Networking Layer & Routing- Introduction and Network Service Model, Routing Principles, Hierarchical Routing, Internetworking: Switch/Hub, Bridge, Router, Gateways, Concatenated virtual circuits, Fragmentation, Firewalls. The Internet Protocol, Routing and the Internet, What's Inside a Router, IPv6, Multicast Routing, Mobility and the Network Layer.

UNIT- III:

Link Layer- Data Link Layer: Introduction and Services, Error Detection and Correction Techniques, Multiple Access Protocols, LAN Addresses and ARP, Ethernet. Hubs, Bridges and Switches, Wireless Links, PPP: The Point-to-Point Protocol, Asynchronous Transfer Mode (ATM), Frame Relay

UNIT- IV

Network Security- cryptography- public key, secret key. Wireless & Mobility Introduction to Wireless and Mobility. Wi-fi, Mobility Principles, Cellular Telephony, Mobile IP, Ad hoc Networks, Moving Beyond the Link Layer- An Interlude.

2. REFERENCES

- **Ferozan. Introduction to Data Communication & Networking, TMH.**

- TCP/IP Network Administration by Craig Hunt
- The Practice of System and Network Administration by Thomas A. Limoncelli and Christina J. Hogan
- Windows XP Professional Network Administration (Networking Series) by Toby Velte

1. SYLLABUS

UNIT- I:

Introduction to Databases, Database Environment, The Relational Model and Languages: The Relational Model, Relational Algebra and Relational Calculus, QBE, Database Design:, ER diagrams and their transformation to relational design, Normalization, Security, Transaction Management: Transaction Support, Concurrency Control, Database Recovery

UNIT- II

Data Definition Language (DDL), Data Manipulation Language (DML), Data Control Language (DCL) commands, Database objects like – Views, indexes, sequences, synonyms and data dictionary, SQL.

UNIT- III

Object Oriented Database Management Systems: Concepts, Composite objects, Integration with RDBMS applications, Issues in OODBMSs, Advantages and Disadvantages of OODBMSs

UNIT- IV

Object-Oriented Database Design. Decision making processes, evaluation of DSS, Group decision support system. Distributed Databases

2. REFERENCES

- Database Administration: The Complete Guide to DBA Practices and Procedures by Craig S. Mullins

- MySQL Database Usage & Administration by Vikram Vaswani

- Understanding Database Administration by Pablo Berzukov

BVP301 LAB11 - VB.NET

1. Assignment for Installing Visual Basic.NET
2. Assignment for Creating a simple Application.
3. Assignment for Making decisions, If statement, Select case
4. Assignment for Loops Visual Basic.NET
5. Assignment for Working with collections and Lists
6. Assignment for Building lookup table with Hash table
7. Assignment for Advanced array manipulation
8. Assignment for Working with data structures, Understanding Arrays
9. Assignment for Building sample Application.
10. Assignment for Creating complex application
11. Assignment for creating the toolbars
12. Assignment for Displaying Dialog Boxes-
13. Assignment for The message Dialog Box
14. Assignment for The open dialog control
15. Assignment for the save dialog control
16. Assignment for control the Font Dialog control
17. Assignment for the colour dialog control
18. Assignment for Print dialog control.
19. Assignment for creating menus, context menus.
20. Assignment for Debugging and Error Handling
21. Assignment for Major Error types
22. Assignment for Debugging
23. Assignment for Error Handling
24. Assignment for Building Classes Our First object
25. Assignment for Constructor
26. Assignment for Inheritance, the Framework Classes.
27. Assignment for Building Favourites Viewer
28. An Alternative favourite Viewer, Using shared properties
29. Assignment for And Methods ,Understanding object oriented programming
30. Assignment for Memory management

BVP 302 DBMS LAB

The laboratory work may consist of 10-15 experiments covering the following topics

- 1 Overview of RDBMS, Oracle introduction
- 2 Introduction of SQLDDL, DML, DTL Basic Data Types
Char, varchar/varchar2, long, number, Fixed & floating point Date, CLOB, BLOB
- 3 Table Constraint definition Commands to create table
- 4 Commands for table handling Alter table, Drop table, Insert records
- 5 Commands for record handling Update, Delete Select with operators like arithmetic, comparison, logical Query Expression operators Ordering the records with orderby Grouping the records
- 6 SQL functions Date, Numeric, Character, conversion Group functions avg, max, min, sum, count
- 7 Set operations Union, Union all, intersect, minus
- 8 Join concept Simple, equi, non equi, self, outer join
- 9 Query & sub queries
- 10 Synonym introduction, object type Create, synonym as alias for table & view, drop
- 11 Sequence Introduction, alter sequence, drop
- 12 View Intro, create, update, drop
- 13 Index Introduction, create
- 14 Primary introduction to DBA User create, granting privileges (Grant, Revoke, Commit, Rollback, Savepoint)
- 15 Report writer using SQL Title, Btitle, skip, pause, column, SQL, Break on, computer sum

BV P303 C++ Programming Lab

1. AIM:

- To provide an opportunity for hands-on practice of object oriented programming and problem solving in a industry-standard programming language and also hands-on practice in various user-defined static and dynamic data structures.

2. OBJECTIVES:

This course will provide hands-on practice in a the following topics, under a variety of programming situations with a focus on writing, debugging and analyzing object oriented programs:

- _ Basic data types and control structures in C++.
- _ Managing classes and objects in a variety of situations
- _ solving moderately complex problems involving the above and requiring selection of appropriate structures and algorithms

3. SYLLABUS

The laboratory work will consist of 15-20 experiments, only by using class concept

Part A

1. Testing out and interpreting a variety of simple programs to demonstrate the syntax and use of the following features of the language: basic data types, operators and control structures.
2. Solving a problem using (i) structures and (ii) classes and comparison between the two (the problem logic and details should be kept minimal and simple to enable focus on the contrast between the two methods, for example declaring result of a set of students defining the name and total marks in the program itself).
3. Class definitions and usage involving variety of constructors and destructors

Part B

4. Programs involving various kinds of inheritances,
 5. Programs involving operator overloading and type conversions
 6. Programs involving virtual base classes, friend functions
 7. Program to demonstrate early and late binding
 8. Program to allocate memory dynamically
 9. Program involving class and function template
 10. Programs to demonstrate (i) string processing (ii) file streams (iii) a variety of selected library functions
 11. Exception handling
 12. Handling of 2-D arrays using pointers
 13. Debugging programs involving syntactic and/or logical errors
- Any two on advanced concept.

BVP 304

Mini Projects in VB

To develop mini project using VB.NET language

FORTH SEMISTER

BVT-401 MANAGEMENT INFORMATION SYSTEMS

1. SYLLABUS

UNIT- I:

An introduction to information systems, Information systems in organizations, Information Technology Concepts, The IS Revolution; Information requirement for the different levels of management, transaction processing system, Management information system, Decision support system. Strategic Role of Information Systems. Business Processes; Information management, and Decision Making. Computers and Information Processing;

UNIT- II

Transaction processing system; hardware and software requirements, tools used, case studies, merits and demerits of transaction processing system.

UNIT- III

Managerial control, Information and tools required difference between transactional system and managerial system. Frequency of taking outputs, Need for interconnected system, common database, Redundancy control, case studies. Decision support system, concept and tools, case studies, virtual organizations, strategic decisions-unstructured approach, cost and values of unstructured information.

UNIT- IV

Optimization techniques, difference between optimization tools and DSS tool expert system, difference between expert system and management information system. Role of chief Information officer.

2. REFERENCES:

- Management Information Systems, by Rajaraman
- Management Information Systems, by S. SADAGOPAN, Prentice-Hall of India
- Management Information Systems By Uma G. Gupta, Galgotia Publications
- Management Information Systems By JAWADEKAR, W.S., Tata McGraw-Hill

BVT-402 E-COMMERCE

1. AIM:

- To create an awareness about role of IT in business and to introduce concepts and techniques of e-commerce

2. OBJECTIVES:

By the end of this course, the student should be able to:

- Have an awareness about role of IT in business
- Have knowledge of basic concepts of e-commerce
- Be aware of different types of e-commerce web sites and different modes of payments
- Be aware of security and legal issues in e-commerce

3. SYLLABUS

UNIT—I

History of e-commerce, definition, classification- B2B, B2C, C2C, G2C, B2G sites, e-commerce in education, financial, auction, news, entertainment sectors, Doing e-Commerce.

UNIT—II

Electronic payment systems – relevance of currencies, credit cards, debit cards, smart cards, e-credit accounts, e-money, security concerns in e-commerce, authenticity, privacy, integrity, non-repudiation, encryption, secret key cryptography, public key cryptography, digital signatures, firewalls

UNIT—III

Mass marketing, segmentation, one-to-one marketing, personalization and behavioural marketing, web advertising, online advertising methods, advertising strategies and promotions, special advertising and implementation topics.

UNIT- IV

Mobile Commerce: attributes and benefits, Mobile Devices, Computing software, Wireless Telecommunication devices, Mobile finance applications, Web 2.0 Revolution, social media and industry disruptors, Virtual communities, Online social networking: Basics and examples, Web 3.0 and Web 4.0, Civil law, intellectual property law, common law and EC legal issues.

4. REFERENCES

4.1 Core

- Erfan Turban et.al., Electronic Commerce—A Managerial Perspective, Pearson Education

4.2 Additional

- R Kalokota, Andrew V. Winston, Electronic Commerce – a Manager's guide, Pearson

BVT403 .NET FRAME WORK WITH C#

Unit I :

Introducing C# What is c#, Why C# & Evolution of C#, Character tics of C#, How C# differs from C++ & Java, Introduction to .Net Technology & Framework, The Common language Runtime(CLR)Visual Studio .Net & .Net languages Features in Visual Studio.net Integrated Development environment, Start page, Solution explorer window, Class view window, Object browser, Code window, Intellisense, Heap facility, Code Debugging, Project types

Unit II :

Arrays, String, Operators Properties, Indexers, Delegates & Events Jagged Arrays, Array &ArrayList class, string class, Boxing & Unboxing variable, Short circuiting operators Properties, Indexers, Delegates & Events Properties, Indexers, Delegates, Multicast Delegates, Events

Unit III :

Namespace, interface & Exception handling Creating & using Namespace(DLL library), Creating & using interface, Exception Unit IV :Multithreading Understanding System. Threading Namespace, Creating & starting Thread, Threading synchronization & Pooling

Unit V :

Windows Application Event Driven Programming Model, Important classes used in windows application, TextBox& Label Control, Button, CheckBox, RadioButton& GroupBox Control, ListBox&ComboBox control, Month Calendar Control, Docking Control, Tree View Control, Menu & Toolbar control, Dialog Boxes Unit VI :Database Connectivity, XML & Web Services Advantages of ADO.NET, Managed Data providers, Developing a Simple ADO.NET Based Application, Retrieving& Updating Data From Tables., Disconnected Data Access Through Dataset Objects

Working with XML Support for XML in .NET, System.Xml namespace, Working with streamed XML, Implementing document object model in .NET, XPath XSLT in .NET, Using XML with ADO.NET Web Services Introduction to web services, Simple object access protocol, Web service description language, UDDI, Creating a web service, Deploying a web service, Using the Web service class, Using the Web service

Reference Books :

1. Programming in C# A Primer - Second Edition By - E Balagurusamy
2. Visual C#.Net By – C Muthu
3. C# 2005 Programming Black Book By Matt Telles&Kogenet Solution Inc.
4. C#.Net Programming Wrox Publication

BVT404 CORE JAVA

1. AIM:

- To introduce students to basic features of Java language and selected APIs

2. OBJECTIVES:

- _ Let students install and work with JDK, also make them aware the use of java doc.
- _ Practice basic data types, operators and control structures in Java
- _ Practice basic handling of classes and objects in Java
- _ Introduce the following selected APIs: I/O, Strings, Threads, AWT, Applet, Networking
- _ Idea to approach and use a new package

3. SYLLABUS

UNIT--I:

Brief History of Java, Special Features of Java, Data Type & Operators in Java, Arrays, Objects, the Assignment Statement, Arithmetic Operators, Relational and Logical Operators in Java, control Structures, The Java Class, Constructor, Simple Java Application, simple Java Applet, Finalizers, Classes inside classes : composition.

UNIT--II:

Inheritance & Interface, Deriving Classes, Method Over-riding, Method Overloading, Access Modifiers, Abstract Class and Method, Interfaces, Packages, Imports and Class Path.

UNIT--III:

Exception Handling, The Try-Catch Statement, Catching more than one Exception, The Finally Clause, Generating Exceptions, Threads: Introduction, Creating Threads in Applications, Method in Thread Class, Threads in Applets.

UNIT--IV:

Java APIs – overview of APIs, IO Packages, Java Input Stream Classes, JavaOutput Stream Classes, File Class, Graphic & Sound: AWT and Swing, Graphic methods, Fonts, Loading and Viewing Images, Loading and Playing Sound, AWT & Event Handling, Layouts, JDBC.

4. REFERENCES

4.1 Core

–

Java Programming, Schaum Outline Series

4.2 Additional

_ Deitel, Java: How To Program, Pearson Education

BVT405 PHP WITH MY SQL

1. AIM:

- To introduce different free and open source softwares

2. OBJECTIVES:

At the end of this course, the students will be able to

- _ Explain the features of free & open source software
- _ Work with PHP
- _ Demonstrate the working of MySQL

3. SYLLABUS

UNIT--I:

The building blocks of PHP: variables, globals & super globals Data types: Set type, type casting, test type, Operators & Expressions, Flow control functions in PHP,

UNIT--II

Functions: Defining a function variable scope, calling a function, returning values ,setting default values for arguments, passing variable reference Arrays: creating arrays(associative & multidimensional), Array related functions Working with strings: Formatting strings, indexing, strlen() functions

UNIT--III:

Forms in PHP: Creating a simple input form, combining HTML & PHP code on a single page, redirecting the user ,creating a send mail form, File upload form Cookies: Introduction, setting a cookie with PHP, deleting a cookie, session function overview: starting a session, working with session variables, passing session IDs in the query string, destroying sessions & unsetting variables

UNIT--IV:

Database concepts: Open source database software: MySQL features MySQL data types: Numeric, date & time, string Table creation in MySQL: insert, select, where clause, ordering the result, like operator Selecting Multiple tables: using join, using queries Modifying records: update command, replace command, delete command date & time functions in MySQL Interacting with MySQL using PHP: connecting to MySQL ,Executing queries, Retrieving error messages, inserting data with PHP, retrieving data with PHP

4. REFERENCES

4.1 Core

- Julie C. Meloni, PHP, MySQL and Apache, Pearson Education
- Ivan Byross, HTML, DHTML, Javascript, Perl, BPB Publication

BVT 406 SYSTEM ANALYSIS AND DESIGN

1. AIM:

- To provide an overview of how a software is developed and what are the different stages by which the development take place

2. OBJECTIVES

At the end of this course, the students will be able to

- _ Explain the background study required for developing a system
- _ Design a new system
- _ Discuss types of testing
- _ Select the hardware and software required for a system

3. SYLLABUS

UNIT- I:

Overview of System analysis and Design: Business system concepts, projectselection, sources of project requests, preliminary investigation, System development lifecycle - Feasibility analysis, design, implementation, testing and evaluation, project review.Feasibility study - technical and economical feasibility, cost and benefit analysis, fact findingtechniques, DFD, Data dictionaries, Decision analysis, decision trees and tables.

UNIT- II:

System design-Design objectives, Process and stages of system design, Designmethodologies, structured design, structured walkthrough, audit considerations, audit trials,detailed design, modularization, UNIT-specification, software design and documentationtools, top down and bottom up approaches

UNIT- III:

Testing & System Conversion: Unit and integration testing, testing practicesand plans, system control and quality assurance, training, conversion, operation plans, systemadministration.

UNIT- IV:

Hardware and Software selection: Benchmarking, Financial considerations inselection software selection, vendor selection, performance and acceptance criteria.

4. REFERENCES

4.1 Core

- _ Award, EM, Systems Analysis and Design, Galgotia Pub, 19914.2 Additional
- _ Lesson, System analysis and Design, SRA pub, 1985
- _ Rajaraman V, Analysis and Design of Information systems, PHI, 1991

BVP401 C#.NET LABS
At least 30 program on C#.NET concept

BVP 402 JAVA LABS

1. AIM:

- To provide an opportunity for hands-on practice in Java.

2. OBJECTIVES:

This course will provide hands-on practice, under a variety of programming situations with a focus on writing, debugging and analysing object oriented programs:

- _ Basic data types and control structures in Java
- _ installing and using JDK
- _ Writing applications and applets
- _ Managing classes and objects in a variety of situations
- _ using i/o, string, threads and net APIs
- _ solving moderately complex problems involving the above.

3. SYLLABUS

The laboratory work will consist of 15-20 Experiments

Part A

1. Testing out and interpreting a variety of simple programs to demonstrate the syntax and use of the following features of the language: basic data types, operators and control structures.
2. Class definitions and usage involving variety of constructors and finalizers
3. Programs involving various kinds of inheritances,
4. Program involving Method Over-riding, Method Over-loading
5. Program involving Abstract Class and Methods

Part B

6. Program involving Interface,
7. Program to demonstrate creation and handling of packages, their imports and ClassPath.
8. Programs involving a variety of Exception Handling situations
9. Program to define a class that generates Exceptions and using objects of the class.
10. Program involving creating and handling threads in applications and applets.
- 11-12: Programs to demonstrate methods of various i/o classes
1. Programs to demonstrate methods of string class
2. Program to demonstrate AWT/Swing graphic methods
3. Program for Loading and Viewing Images, Loading and Playing Sound
4. Programs to demonstrate various Layouts
- 17-18 Programs to demonstrate event handling
19. Program to demonstrate simple server-client (using a single m/c both as client and server)
20. Debugging programs involving syntactic and/or logical errors

BVP 403 PHP LABS

At least 30 program on C#.NET concept

BVP 404 MINI PROJECTS IN PHP

At least 30 program on PHP concept