



St. Xavier's College – Autonomous
Mumbai

Syllabus

For 1st Semester Courses in
B. Voc (Tourism)

and

B. Voc (Software Development)

General Education Component

From June 2016

Theory Syllabus for Courses:

A.BVT.1.01/S.BVS.1.01 – Business Communication Skills - I

A.BVT.1.02/S.BVS.1.02 – Effective French skills - I

A.BVT.1.03/ S.BVS.1.03 – Environmental Studies (SPC.1.01)

A.BVT.1.04/ S.BVS.1.04 – Office Automation Software

SEMESTER I COURSE : A.BVT.1.01/S.BVS.1.01

BUSINESS COMMUNICATION - I

LEARNING OBJECTIVE:

- To enable students to have firm grounding in English to be able to use it effectively in professional as well as social contexts.
- To work towards strengthening the learning process of English language so that our graduates can find their feet in the fiercely competitive job market.

[Total Lectures 45]

Unit1 Introducing Professional English

Total Lectures: 09

1. Oral communication in English
2. English phonology
3. Intonation patterns in English

Unit2 Current Usage of English Grammar

Total Lectures: 18

1. auxiliaries
2. tense and aspect
3. interrogative and negative sentences
4. the positive
5. conditionals
6. Concord

Unit3 Vocabulary

Total Lectures: 09

1. Phrasal Verbs
2. Idioms
3. Collocations

Unit4 Written Business Communication

Total Lectures: 09

1. Email Etiquette
2. Professional Presentations
3. Writing a Resume

Continuous Internal Assessment

Assignments / Projects/ Presentations/ Written Test etc.

SEMESTER I COURSE : A.BVT.1.02/S.BVS.1.02

EFFECTIVE FRENCH SKILLS – I

LEARNING OBJECTIVE:

- Sensitize learners to the French language.
- Create interest in another country and culture.
- Identify a few monuments .Locate a few cities on the map. Know the names of a few specialties.
- Learn basic vocabulary to express simple sentences to talk about oneself.
- Acquire basic communication to open a conversation with a francophone person.
- Write a simple greeting card/email for birthday, Christmas, New Year ...to someone.

[Total Lectures 45]

Unité 1

Objectifs de communication: Thème :se présenter

Saluer et prendre congé

Epeler un mot

Vocabulaire

Salut ça va?/Bonjour comment allez-vous?/Ciao/au revoir

Je m'appelle...Je suis étudiant(e) Je suis indien (nne)

Nombres ordinaux 0 à 20

Les jours de la semaine

Grammaire

Le verbe s'appeler/le verbe :Etre

Phonétique

L'alphabet français

Culture et Civilisation

Paris et ses monuments

Les salutations en France et en Inde

Thèmes tâches et projets

Repérer des mots français.

Préparer une carte d'identité

II Unité 2

Objectifs de communication:Thème Identifier les objects/les personnes

Identifier quelquechose-Qu'est-ce que c'est?Qui est-ce?

Vocabulaire

Matériel scolaire /affaires personnelles/vocabulaire générale de la salle de classe.
Porte ,fenêtre, stylo-bille,portable, balladeur, clé USB, crayon, feutre, trousse, livre, taille-
crayon
Cahier, CD , sac à dos,
Les noms de quelques nationalités et de pays
Les noms de quelques professions:professeur,étudiant,directeur,directrice, ...
Nombres 20 à 50
Les mois de l'année

Grammaire

Articles indéfinis et articles définis
Voici/Voilà
Verbe "Avoir"
Les adjectifs interrogatifs

Phonétique

L,accent aigu/grave/circonflexe...

Culture et Civilisation

Prénoms français
Identités imaginaires ou
Présenter une personnalité célèbre:
Il /elle s'appelle ,il/elle et + nationalité .profession, age...il/elle habite En /Au..

Thèmes tâches et projets

Jeu de role en classe
Préparer une carte de visite ou créer un blog
Remplir un formulaire d'inscription.

III Unité 3

Objectifs de communication: Thème :Mes passe-temps

Parler de ses goûts

Vocabulaire

Exprimer ses goûts.J'aime/j'adore/je déteste...
Passe-temps et sports-dessiner/écouter/faire /jouer/lire/regarder/travailler/surfer sur internet/
Sports préférés -badminton/foot/basket/ping pong/jogging/tennis/vélo/natation/
Quelques couleurs
Numéros 50 à 80

Grammaire

Le verbe "ER"-aime, habiter,jouer,adorer,détester
La forme négative
Le verbe "Faire"

Quelques adjectifs qualificatifs

Phonétique

La voix montante-interrogation

Culture et Civilisation

Les stades ou les équipes ou les sports français

Ou La France et ses symboles

Thèmes tâches et projets

Loisirs et passetemps en Inde et en France

Identifier quelques marques ou quelques monuments /personnalités françaises.

IV **Unité 4**

Objectifs de communication:Thème: Ma famille

Parler de sa famille

Vocabulaire

Les relations:mon père,grand-père mère.grand mère.frère, soeur,oncle, tante ,cousins

Nombres 80 à 100

Révision des professions et ajouter d'autres comme : pilote /étudiant en gestion,étudiant en tourisme/danseur/chanteur/écrivain..

Grammaire

Adjectifs possessifs :mon ma mes.

Verbes –aller/révision du verbe faire

Verbes IR

Encore des verbes ER-chanter, manger, danser, regarder,donner,écouter

Phonétique

Sons sh je/s z/ou u/

Culture et Civilisation

La vie de famille en France

Thèmes tâches et projets

Construire un arbre généalogique

Parler de sa famille avec une photo de famille

Continuous Internal Assessment:

Evaluation will be based on oral and written continuous tests in class.

References:

Select Bibliography:

Publication

Hachette:

- 1 Bien Joué1
- 2 Alter Ego 1
- 3 Le kiosque

Clé International

- 1 Amis et Compagnies 1
- 2 Grammaire Progressive du Français

Hatier

- 1 Premiers Exercices de Grammaire

Magazine Langers publication

On y va

Video Methods:

- 1 Taxi
- 2 Connexions

SEMESTER I COURSE : A.BVT.1.03/S.BVS.1.03

ENVIRONMENTAL STUDIES

Learning Objectives:

1. To familiarize students to the basic concepts of Environmental studies.
2. To help students develop their own perspectives around environmental issues.
3. To enable students to take practical steps to conserve the environment.

Number of lectures: 45

UNIT 1

Environment

[12 lectures]

- a. Definition and Composition – Lithosphere, Hydrosphere, Atmosphere, Biosphere, Hydrological Cycle
- b. Historical Development and Approaches
- c. Man and Nature relation and interaction with respect to Food, Clothing, Shelter and Occupation : Concept of Ecology and Ecosystem.

UNIT 2

Resources and Wealth

[12 lectures]

- a. Meaning, Types of Resources, Exploitation of Resources, use of Technology and its Impact on Natural Environment
- b. Wealth – meaning, Distinction between wealth and resources, Optimum Conversion of Resources into wealth
- c. Anthropogenic Waste – its effects, Man made Industrial waste.

UNIT 3

Environmental Degradation

[12 lectures]

- a. Meaning, causes : Degradation of Urban Land, Forest and Agricultural Land due to natural causes and human interference.
- b. Global Warming : Problems of non-degradable Waste – Electronic Devices, Plastic and Man- made fibres.
- c. Environmental Assessment – Environmental Impact Assessment (EIA), Environmental Auditing, Environmental Legislation in India, Carbon Bank.

UNIT 4

Environmental Management

[9 lectures]

- a. Meaning, development and environmental linkages.
- b. Environmental concerns in India. The need for sustainable development.
- c. Actions for environmental Protection: national and international initiatives, emerging environment management strategies, Indian initiatives.
- d. Environmental Protection Movements and NGOs in India.

Continuous Internal Assessment: Projects / Presentations / Tests

List of Recommended Reference Books:

R. Rajagopalan, R. (2005) *Environmental Studies – From Crisis to Cure*. Delhi: OUP

Additional reading:

Guha Ramachandra Environmentalism: A global history (OUP) (2000)

Movies:

An Inconvenient Truth, Al Gore

The 11th Hour, Leonardo DiCaprio

The Age of Stupid. Franny Armstrong.

Baraka, Ron Fricke.

Climate change: An Untold Story [Climate's First Orphans; The Weeping Apple Tree; A Degree of Concern; A Green Agony], Discovery Channel.

Liquid city--Mathew Gandy.

Story of Stuff --Free Range Studios Tides Foundation.

Story of bottled water---Free Range Studios Tides Foundation

SEMESTER I COURSE : A.BVT.1.04/S.BVS.1.04

OFFICE AUTOMATION SOFTWARE

Learning Objective:

To equip with advanced features of office automation software Microsoft Excel, so that they can apply this skill for office jobs in banking and finance domain and also across different industries.

Number of lectures: 45

| | |
|--|---------------------------|
| <p>UNIT 1 Introduction to MS-Excel, Creating & Editing Worksheet, Formatting and Essential Operations Use of Formulas and Functions like</p> <ol style="list-style-type: none">1. VLOOKUP, HLOOKUP2. SUMIF, SUMIFS, SUMPRODUCT, DSUM3. COUNTIF, COUNTIFS, IF4. IFERROR, ISERROR, ISNA, ISNUMBER, ISNONTEXT, ISBLANK, ISTEXT5. GETPIVOTDATA6. DCOUNT, DCOUNTA, OR, AND, SEARCH, INDEX, MATCH ETC <p>Using conditional formatting with Formulas and Function, Array Formulas, Charts, Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation Database Management using Excel-Sorting, Table, Data Validation, Creating drop down lists using different data sources ,Goal Seek, Various Methods of Filter and Advance Filter options, Creating and Updating Subtotals</p> | <p>15 lectures</p> |
| <p>UNIT 2</p> <p>WhatIf Analysis --Goal Seek --Data Tables --Scenario Manager --Understanding Solver --Configuring Solver</p> <p>Charts --Using Charts --Formatting Charts --Using 3D Graphs --Using Bar and Line Chart together --Using Secondary Axis in Graphs --Sharing Charts with PowerPoint / MS Word, Dynamically</p> | <p>15 lectures</p> |

| | |
|--|---------------------------|
| <p>--(Data Modified in Excel, Chart would automatically get updated)</p> <p>New Features Of Excel</p> <p>--Sparklines, Inline Charts, Data Charts</p> <p>Understanding Financial Functions</p> <p>PMT , FV, PV, Compound Interest, Calculating Loan EMI</p> <p>SLN , SYD, DB , DDB, VDB</p> | |
| <p>UNIT 3</p> <p>Macros</p> <p>Recording a Macro, Playing Macro, Placing Macro on Quick Access Toolbar, Attaching Macro to a Button inside worksheet.</p> <p>Use Relative References, MacroSecurity</p> <p>Introduction to VBA</p> <p>Creating Developer Tab, Purpose of VBA , Add command button to spreadsheet,</p> <p>Simple programs to read from and write to an excel sheet some data</p> <p>Variables in VBA</p> <p>Option Explicit, Variable Scope, Life of Variables.</p> <p>MsgBox Function, InputBox Function to accept variable values and display output.</p> <p>If Then Statement using VBA</p> <p>Logical Operators, Select Case, Tax Rates, Find Second Highest Value, Sum by Color, Delete Blank Cells.</p> <p>Loop in VBA</p> <p>Loop through Defined Range, Loop through Entire Column, Do Until Loop, Step Keyword, Sort Numbers, Randomly Sort Data, Remove Duplicates,</p> <p>Userform , Controls in VBA</p> <p>Userform and Ranges, Currency Converter, Progress Indicator, Multiple List Box Selections, Multicolumn Combo Box, Dependent Combo Boxes, Loop through Controls, Controls Collection, Userform with Multiple Pages, Interactive Userform, Adding Calendar control.</p> <p>Function and Sub in VBA</p> <p>User Defined Function, Custom Average Function, Volatile Functions, ByRef and ByVal.</p> | <p>15 lectures</p> |

TEXT BOOKS

1. Advanced Excel Essentials – Jordan Goldmeier
2. Excel VBA Programming For Dummies – John Walkenbach
3. Learn Microsoft Office – Russell A. Stultz – BPB Publication

REFERENCES BOOKS

1. Microsoft Office – Complete Reference – BPB Publication
2. Microsoft Excel 2013 VBA and Macros by Bill Jelen – Pearson Publication
3. [Excel 2010 Bible](#) – John Walkenbach

Websites

- 1) <http://www.mrexcel.com>
- 2) <http://www.theofficeexperts.com>
- 3) <http://www.excel-vba.com/>
- 4) <http://www.excel-easy.com>

Note: students can use version of office from office 2007 onwards to office2013



St. Xavier's College – Autonomous Mumbai

Syllabus For 1st Semester Courses in B. Voc (Software Development) (June 2016 onwards)

Contents:

Theory Syllabus for Courses:

S.BVS.1.05 – Basics of Computer Organisation and Networking

S.BVS.1.06 – Structured Programming Using C++

S.BVS.1.07 – Quantitative techniques I

S.BVS.1.08 – Introduction to web designing (HTML, CSS, JQuery, JavaScript)

Practical Course Syllabus for: S.BVS.1.PR

BASICS OF COMPUTER ORGANIZATION AND NETWORKING.

Unit 1: Basics of Computer Organization 15

Lectures

Evolution of Computers, Von Neumann model, Numbering and Coding Systems, Data Representation, Inside the Computer: Important computer terminology, Basic organization of computer and block level description of the functional units, Primary Memory, Registers, Memory Organization, Cache Memory, Virtual memory, Processors, Input / Output devices.

Unit2: Networking Concepts 15

Lectures

Data Communications: Components, Data Representation, Direction and Flow, Networks: Physical Structures and Categories of Network, Protocols and Standard, Standard Organization, Network Model: Internet Model and OSI Model, Transmission modes, Transmission Media, Internetworking Devices Network Models.

Unit3: Internet and Recent Advancements in IT 15

Lectures

The Internet: a World-Wide Resource. What's on the Internet, All about Domain Name System (DNS), Making an Internet Connection, Dial-Up Connections, mail services and search engines, Brief Introduction to Advanced computing technologies and applications: Distributed Computing, Mobile Computing, Grid and Cluster Computing, Parallel Computing and Cloud Computing, Big Data Analysis, Fuzzy and Neural Computing.

References :

1. Carl Hamacher, Zvonko Vranesic and Safwat Zaky, "Computer Organization", Fifth Edition, Tata McGraw-Hill.
2. John P. Hayes, "Computer Architecture and Organization", Third Edition.
3. William Stallings, "Computer Organization and Architecture: Designing for Performance", Eighth Edition, Pearson.
4. B. Govindarajulu, "Computer Architecture and Organization: Design Principles and Applications", Second Edition, Tata McGraw-Hill.
5. A. S. Tanenbaum, "Computer Networks", 4th edition, Prentice Hall
6. B. F. Ferouzan, "Data and Computer Communication", Tata McGraw Hill.
7. Andrew S. Tanenbaum, "Structured Computer Organization", 5th Edition, Tata McGraw Hill.
8. The 8051 Microcontroller and Embedded Systems.

STRUCTURED PROGRAMMING USING C++

LEARNING OBJECTIVE:

To master the basic concepts of a programming language and how to apply it in order to generate solutions for various problems.

[Total Lectures 45]

Unit 1. 'C++' Programming Language Fundamentals

[15]

Need for a programming language? Origin of C++,

How to write an algorithm for a given problem, Converting an algorithm to a flowchart.

Elementary C++ programming basics: Characters and Literals, Tokens, Keywords, Identifiers, Variables, Constants, Data types, Comments.

Operators: Types of Operators, Operator Precedence and Associativity, Expression, types of statements: Input and Output, cin, cout, escape sequences, include directives and Namespaces,

Need for Indentation and Comments,

Dry runs, testing and debugging tips

Unit 2. Flow control and Functions

[15]

Compound statements

Loops:

while, for, do while , nested loops.

Decision making:

if – else, nested if else, switch, break and continue.

Manipulators:

endl ,setw, sizeof.

Increment and decrement operators.

Type Cast Operators, Overflow and Underflow problem,

Scope resolution operators, Logical Operators, Comparison Operators

Function Prototypes , built in functions and user defined functions,

Lifespan of a variable, return statement, ternary operator,

Function overloading, Call by reference, Call by value, const member functions.

Inline Functions and recursive functions, Math Library Functions

Unit 3. Derived Data types

[15]

Introduction to arrays, arrays in functions, 2-D arrays, Multidimensional arrays.

Introduction to pointers, void pointers, pointers in function, pointer to constant and constant pointer, generic pointer.

String functions: strcmp, strcat, strlen, strcpy .

Structures: Structures concept, Application.

Union: Union Concept, Application

Continuous Internal Assessment

Assignments / Project

Mid Term test.

BOOKS:

1. Problem Solving with C++ , Walter Savitch, Sixth Edition, Pearson Education.
2. J. R. Hubbard, Schaum's outlines "Programming with C++", Second Edition , Tata McGrawHill
3. Y.P.Kanetkar, "Let us C++" , seventh edition, BPB publication

REFERENCES:

1. Object Oriented programming with C++ ,E Balagurusamy , Third Edition , Tata McGraw Hill.
2. Object oriented programming with C++ Poonamchandra Sarang, PHI Second Edition.
3. Pure C++ programming , Amir Afzal, Pearson Education.
4. Computer Science – A structured Approach using C++ bu B. Forouzan, R. F. Gilberg, Cengage Publication

QUANTITATIVE TECHNIQUES – I

Learning Objective: To equip students with mathematical and statistical techniques and to develop an analytical approach for developing algorithms. This study is required in study of advanced software such as Data Warehousing and Mining , Software Testing, Enterprise Resource Planning etc.

[Total Lectures: 45]

UNIT I [12]

SETS: Sets, Subsets, Equal Sets, Universal Sets, Finite and Infinite Sets, Operation of Sets, Union, Intersection and Complement of sets, Cartesian Product, Cardinality of Sets, Simple Applications.

RELATION: Properties of Relation, Equivalence Relation, Partial Order Relation.

FUNCTIONS: Domain and Range, Onto , Into and One-to One- Functions, Composite and Inverse functions, Hashing functions and Recursive Functions.

UNIT II [11]

MATHEMATICAL LOGIC : Introduction, Statements, Logical Connectives and Compound Statements: Negation, Conjunction, Disjunction, Implication, Converse and Inverse, logical Equivalence, Tautologies: Contradiction, Contingency, Algebra of Propositions, Argument, Predicate and Quantifiers.

UNIT III [11]

DETERMINANTS : Definition, Minors, Cofactors, Properties of Determinants

MATRICES: Definition, Types of matrices, Multiplication of matrices, Adjoint, Inverse, Cramer’s Rule, Rank of matrix, Dependence of vectors, Eigen vectors of a matrix, Cayley-Hamilton Theorem

UNIT IV [11]

MEASURES OF CENTRAL TENDENCIES: Definition of Average, Types of Average, Mean, Median, Mode for grouped as well as ungrouped data, Quartiles, Deciles, Percentiles

MEASURES OF DISPERSION: Concept and Idea, Various measures, Range, Quartile deviation, Mean deviation, Standard deviation, Variance.

References:

- 1) Discrete Mathematical structures by Kolman ,Busby, Ross
- 2) Statistical Methods, Medhi J. : An Introductory Text, Second Edition, New Age International Ltd.
- 3) Basic Statistics, Agarwal B.L. : New Age International Ltd.

CIA:

Written Tests will be conducted.

INTRODUCTION TO WEB DESIGNING

LEARNING OBJECTIVE:

To learn Web page designing and programming using HTML,CSS,Jquery and Javascript

[Total Lectures: 45]

UNIT 1 : HTML

[15]

HTML Tag Reference, Global Attributes,
Document Structure Tags, Formatting Tags, Text Level formatting,
Understanding the difference between a tag, element and attributes in HTML
Organizing Text in HTML
Preformatted Text, DIV Element, SPAN Element
Creating Lists (Definition, Unordered and Ordered)

Imagemaps

What are Imagemaps?
Client-side Imagemaps,
Server-side Imagemaps,
Using Serverside and Client-side Imagemaps together,
Alternative text for Imagemaps,

Hyperlink tags

Exploring the Hyperlinks, href attribute,
target attribute (_blank, _parent, _self, _top) and id attribute,
Images and text as hyperlinks,

Tables

Understanding Tables, Describing the TABLE Element,
CAPTION, COLGROUP, COL, TBODY, THEAD, TFOOT, TR, TD, TH,
Spanning Rows and Columns,
Placing images and text in a table, Nested Tables

Introduction to Frames, Applications,

The <FRAMESET> tag, Placing content in frames with the <FRAME>tag,
Targeting named frames,
iframes

Forms

Creating Forms using <FORM> tag and its attributes,
The <input> tag and its attributes, Single and Multiple lines text fields,
Password Field, Radio Button, Checkboxes, Submit button,
Select element, Hidden Text, Text Area, Button, Label, fieldset, legend,
Option, Optgroup, Disabled and read-only fields,
Form field event handlers,
Passing form data

UNIT 2 : Style Sheets using CSS3

[15]

Evolution of CSS, Understanding the CSS Syntax, Exploring CSS Selectors (universal, type, class, id, child, descendant, adjacent sibling),

Inserting CSS in an HTML document:

The Internal Style Sheet

The External Style Sheet

The Inline Style Sheet

Effects of a stylesheet : hover effect, Drop shadow effect, Blur, rotating an image (rotate, rotateX, rotateY, skew)

Defining Inheritance in CSS

Backgrounds and Color Gradients, Fonts and Text Styles, Creating Boxes and Columns, Displaying, Positioning, Floating an Element, List Styles, Table Layouts

Pseudo-classes and Pseudo-elements

UNIT 3 Java Script & jQuery

[15]

Introduction Client-Side JavaScript, Server-Side JavaScript,

Operators Assignment Operators, Comparison Operators, Arithmetic Operators, % (Modulus), ++ (Increment), -- (Decrement), - (Unary Negation), Logical Operators, Short-Circuit Evaluation, String Operators, Special Operators, ?: (Conditional operator), , (Comma operator), delete, new, this, void

Statements Break, comment, continue, delete, function, return, switch, var

Core JavaScript (Properties and Methods of Each)

Array, Boolean, Date, Function, Math, Number, Object, String, RegExp

Events and Event Handlers

General Information about Events, Defining Event Handlers, Event, onAbort, onBlur, onChange, onClick, onDbClick, onDragDrop, onError, onFocus, onKeyDown, onKeyPress, onKeyUp, onLoad, onMouseDown, onMouseMove, onMouseOut, onMouseOver, onMouseUp, onMove, onReset, onResize, onSelect, onSubmit, onUnload

jQuery

Fundamentals of jQuery, Loading and using jQuery, jQuery Syntax, jQuery Selectors, Element properties and attributes, Methods to access HTML Attributes, Methods for Traversing, jQuery Events, CSS using jQuery

Continuous Internal Assessment

Assignments / Project

Mid Term test.

Text Books

1. **Web Design The Complete Reference by Thomas Powell, Tata McGraw Hill**

2. **HTML black book, Steven Holzner**
3. **HTML and XHTML The Complete Reference by Thomas Powell, Tata McGraw Hill**

<http://www.w3schools.com>

B. VOC (Software Development)

Course: S.BVS.1.PR

PRACTICALS

BASICS OF COMPUTER ARCHITECTURE AND NETWORKING

1. Knowledge of hardware that goes in the making of a computer: Assembling of PC.
2. Installation of OS, setting up of dual boot, installation of hardware and software.
3. Hands on experience on the basic utilities in computers.
4. Execution of File handling commands in DOS Prompt.
5. Learning the methodology of accessing websites and Online resources through the Internet.
6. Gaining knowledge on how to set up a LAN network and to learn the functioning of the various connecting devices in use in the Computer Lab.
7. Working on securing your system by studying various security controls available in the system. E.g setting up of accounts, password protecting file etc.
8. Setting up an internet connection. Dial-Up/Wifi

C++ PROGRAMMING

LEARNING OBJECTIVE:

To help students learn to write an algorithm, convert it to program logic, perform a dry run by hand first and then execute the same on a computer, thus instilling the foundations of basic programming principles in them.

- I. Write a C++ program for displaying the menu for a popular coffee shop using the following :endl, '\t', '\n', other special/escape characters as required.
- II. First construct a flowchart and then convert it to source code/program in order to perform the following using C++:
 - a. Addition and multiplication of integers.
 - b. Write a C++ program to Calculate simple and compound interest.
- III. Write an algorithm and then develop C++ programs to perform the following using functions via the top-down approach:
 - a. Determining if a number is +ve / -ve / even / odd

- b. Calculate sum of the digits of a number
 - c. Maximum of 2 numbers, 3 numbers
 - d. Find the reverse of a number, entered by the user.
- IV. Write functions to perform the following tasks using a C++ program via the bottom-up approach.
- a. Sum of first n numbers, given n numbers
 - b. solving the quadratic equation.
 - c. printing all the prime numbers in a given range (ask user input for lower bound and upper bound of the range)
- V. Write a C++ program for displaying the Fibonacci series.
- VI. Write a C++ program for converting a number to words. (switch) example: the number '765' should be written as 'seven six five'. Further now modify it to get the output as "seven hundred sixty five".
- VII. Write a C++ program having two functions:
- a. Swapping two numbers with the use of a third variable
 - b. Swapping two numbers without using third variable.
- VIII. Write a recursive C++ function for calculating the factorial of a given number
- IX. Write an inline function to calculate the following:
- X. Write a C++ program for (1D arrays):
- a. sorting an array of numbers in ascending and descending order
 - b. Finding the max in a user input integer array
- XI. Write a C++ program for the following(2D arrays):
- a. Matrix Transpose
 - b. Matrix Addition.
 - c. Matrix Multiplication.
 - d. Inverse of a matrix.
- XII. Write a program for implementing the concept of structures and unions
- XIII. Write a C++ program for finding the greatest and smallest number using vector
- XIV. Write a C++ program for:
- a. Implementing the concept of call by value and call by reference.
 - b. Programs on use of pointers

B. VOC (Software Development)

Course: S.BVS.1.PR

PRACTICAL COMPONENT For Quantitative Techniques - I

TUTORIALS will be conducted on the topics included in the theory syllabus of 1.07, Quantitative Techniques.

PRACTICAL LIST FOR WEB DESIGNING

1. Use of document structure tags and text formatting tags

`<html>`, `<head>`, `<title>`, `<body>`, ``, `<i>`, `<u>`,
`<strike>`, ``, ``, `<big>`, `<small>`, `<sub>`, `<sup>`, `<H1>` to `<H6>`

2. Use of List tags

Ordered and unordered list ``, `` ``, `<dl>`, `<dt>`, `<dd>`

3. Images and Imagemaps

``, `<map>`, `<area>` tags

4. Use of Table tag

CAPTION, TBODY, THEAD, TFOOT, TR, TD, TH, Spanning Rows and Columns

5. Use of Frame tags

`<frame>` and `<frameset>` tags

6. CSS (hover effect, text shadow effect, rounded borders of the table, image as the list item etc.)

7. Use of Form tags (Designing a registration form)

`<form>`, `<option>`, `<input>`, Single and Multiple lines text fields, Password Field, Radio Button, Checkboxes, Submit button, Select element, Text Area

8. Create an HTML form that accepts an integer value from the user and then using JavaScript, prints its factorial.
9. Design an HTML form for the billing of items. Using JavaScript calculate the total bill of the items purchased by the user. (make use of check box/radio button/text box etc) use the events like (onchange, onclick, onfocus etc.)
10. Design a form and validate all the controls placed on the Registration form using JavaScript and regular expressions.

Note: Complete minimum 8 from the above list.



St. Xavier's College – Autonomous Mumbai

Syllabus For 2nd Semester Courses in B. Voc (Tourism) and B. Voc (Software Development)

From November 2016

General Education Component

Theory Syllabus for Courses:

- A.BVT.2.01/S.BVS.2.01 – Business Communication - II
- A.BVT.2.02/ S.BVS.2.02 – Effective French skills - II
- A.BVT.2.03/ S.BVS.2.03 – Giving Voice to Values (SPC.2.01)
- A.BVT.2.04/ S.BVS.2.04 – Elements of Digital Design

SEMESTER II COURSE : A.BVT.2.01/S.BVS.2.01

BUSINESS COMMUNICATION - II

LEARNING OBJECTIVE:

- To facilitate advancement in career based on students' need to present his or her personality efficiently.
- To equip the students with the necessary speech skills/basic writing skills for professionally interacting with others in an effective manner

[Total Lectures 45]

Unit1 Advanced Communication Skills

Total Lectures: 12

1. Initiating, Sustaining and Closing a Business Conversation. Selling skills : closing a sale
2. Participating in Business Discussions
3. Making Formal Speeches
4. Diction and pronunciation.

Unit2 Telephone Skills

Total Lectures: 11

1. Agreeing and Disagreeing in Industry
2. Appointments and Friendly Reminders
3. Making and Handling Complaints

Unit3 Internet Communications Skills

Total Lectures: 11

1. Drafting business e-mails
2. Attending to queries
3. Email etiquette.
4. Writing blogs and articles.

Unit4 Office Communication

Total Lectures: 11

1. Presentation Techniques including making power point presentations.
2. Group Discussions
3. Situational Role Play

Continuous Internal Assessment

Assignments / Projects/ Presentations/ Written Test etc.

References:

1. Morris and Smith, *Business Writing*, Orion Business Toolkit
2. Thomas Huskin and Leslie Olsen, *Technical Writing and Professional Communication*, McGRAW-HILL International Editions
3. Jane Dorner, *Writing for the Internet*, Oxford University Press

4. Paul Nelson and Judy Pearson, *Confidence in Public Speaking*, Jaico Publishing House
5. L. Sue. Baugh, *How to Write First Class Business Correspondence*, Viva Books Pvt. Limited

SEMESTER II COURSE : A.BVT.2.02/S.BVS.2.02

EFFECTIVE FRENCH SKILLS - II

LEARNING OBJECTIVE:

- Discover a few aspects of French life: people food customs...
- Learn basic vocabulary to express simple sentences to talk about oneself.
- Acquire basic communication skills to buy something, to ask for/give directions.
- Develop skills and confidence to converse in a very basic manner with a French speaking person beyond introductions.

[Total Lectures 45]

Unité 5

Objectifs de communication:Thème: Ma chambre/Ma maison/Ma ville

Parler de sa chambre .Situer dans l'espace.

Grammaire

Il y a un/une/des.....dans ma chambre

Les prépositions: sur,sous,devant.derrière,à coté de , près de ,pour localiser les objets.

Les nombres :premier, deuxième...dixième

Négation :ne –pas

Impératif

Phonétique

Les voyelles nasales

Culture et Civilisation

La carte de France pour voir les villes importantes en France

Ou L'importance de quelques villes en France..

Quelques coutumes françaises.

Thèmes tâches et projets:

Décrire sa chambre/sa ville-phrases simples (genre-il y a une poste,un cinéma....)

Remplir avec du vocabulaire et des verbes une petite histoire simple

Localisation des objets.

Lecture à voix haute

II Unité 6

Objectifs de communication: Les repas

Parler des repas du jour

Savoir dire L'heure et la date

Grammaire

Les articles partitifs

Verbes –faire/dire

Les adjectifs démonstratifs

Phonétique

Opposition {u} {Y}

Culture et Civilisation

Les spécialités gastronomiques en France

Les repas en France et en Inde

Commander un plat au restaurant/dans un fast-food.

Thèmes tâches et projets

Parler des repas en France

Parler des spécialités gastronomiques ou quelques phrases sur une ou deux fêtes importantes:exemple Pour la fête de Sankranti on mange../on porte.. /on donne.../

III Unité 7

Objectifs de communication:Theme:Les vacances

Parler des goûts /des passetemps et des vacances

Vocabulaire:

Parler de ses activités.

Parler de ses loisirs

Quelques vêtements

Grammaire

Les interrogations:Qui/Quand/comment/pourquoi?

Prépositions à/ chez

Les adjectifs possessifs

Phonétique

Intonation des phrases déclaratives./interrogatives

Culture et Civilisation:

La carte de France avec ses régions importantes.

Quelques sites touristiques .

Thèmes tâches et projets:

Remplir une carte postale à trous.

Acheter un souvenir/un t-shirt dans un magasin de souvenirs.

Continuous Internal Assessment:

Evaluation will be based on oral and written continuous tests in class.

References:

Select Bibliography:

Publication

Hachette:

1 Bien Joué1

2 Alter Ego 1

3 Le kiosque

Clé International

1 Amis et Compagnies 1

2 Grammaire Progressive du Français

Hatier

1 Premiers Exercices de Grammaire

Magazine Langers publication

On y va

Video Methods:

1 Taxi

2 Connexions

SEMESTER II COURSE : A.BVT.2.03/S.BVS.2.03

GIVING VOICE TO VALUES

LEARNING OBJECTIVE:

- To familiarize students with foundational value concerns.
- To help students to critically analyse and develop their own values.
- To enable students to take practical steps to act on their values.

[Total Lectures 45]

UNIT– I: Value Clarification [5 lectures]

- What is a value?
- Exercises* to reveal values.
- Value Formation.

UNIT – II: Comparative Religions [7 lectures]

- Inter-religious sensitivity: main ideas from the major religions
- Sharing Faith: what is the religious meaning that is precious to you
- Breaking through stereotypes
- Communalism and Building community

UNIT- III: Corruption as a way of life [5 lectures]

- Case studies e.g. CWG, Adarsh, 2G, Coalgate...
- Attempt to analyse causes
- Strategies to avoid corruption: RTI, Civil society groups, other strategies to bring accountability and transparency

UNIT – IV: Violence and Conflict Resolution [5 lectures]

Understanding violence and conflict

- Causes and forms of violence and conflict
- Conflict resolution

UNIT - V: Youth and Substance Abuse [6 lectures]

- Substance abuse - Causes and symptoms
- Forms of substance abuse - Alcoholism, Drug addiction, Smoking
- Preventive and curative measures

UNIT – VI: The problem of evil [4 lectures]

- Conceptualising evil
- Manifestations of evil

- Mitigation

UNIT – VII: Prayer - communal and personal [3 lectures]

- What is prayer?
- The importance of prayer and silence in one's life

UNIT – VIII: Critical Thinking [3 lectures]

- What is critical thinking?
- The value of critical thinking
- Analysis of Newspapers, TV, Film

UNIT – IX: Ethical Relationships [7 lectures]

- Young People: Suicide, Depression, Ragging
- Causes and symptoms
- Coping strategies

Continuous Internal Assessment:

Presentations / Tests / assignments

References:

- *In Harmony: Value education at college level*- Department of Ethics and Religious studies, Loyola College, Chennai.
- Y Masih , *Introduction to Religious Philosophy* – (Chapters- 1, 2, 13, 15)
- Godfrey Harris , *Corruption: How to deal with its impact on Business and Society*-.
- Irwing G Sarason and Barabara Sarason, *Abnormal Psychology* (Chapter- 13- Substance Abuse: Drugs / Alcohol)-

Resources:

Film: The Four Religions – Arnold Toynbee

Film: The Seven Circles of Prayer – Martin Smith

Film: God in the Dock – Ellwood Kieser

Film: Teenage depression and suicide – Andrew Schlessinger

Film: Portrait of addiction- Moyers collection on DVD- Films for Humanities and sciences.

SEMESTER II COURSE : A.BVT.2.04/S.BVS.2.04

ELEMENTS OF DIGITAL DESIGN

LEARNING OBJECTIVE:

Learn to explore the beauty of digital design software from the practical to the painterly artistic. In 45 sessions, practice the editing concepts to understand how Photoshop will help to create successful customized images.

[Total Lectures 45]

Unit 1 - Getting started with Photoshop

Number of lectures 10

- Fundamentals of Photos editing softwares
- What new in photoshop
- Basics of Images
- Vector Images
- Bitmap Images
- Interfacing with the Photoshop Desktop
- Working with The Menu Bar and Tool Box
- File and Edit Menus
- The Image Menu
- The Layer Menu
- The Select Menu
- The Filter Menu
- The View Menu
- The Help Menu
- ToolBox
- New Features in Photoshop
- Custom Brushes
- Healing Brush
- Picture Package
- Web Photo Gallery
- Spell Checking
- Opening Recent Images
- Importing Images
- PDF Image

- Annotations
- WIA Support
- Placing Images
- Optimizing Images

- File Browser
- PDF Security
- Understanding the Selecting Tools
- Rectangular Marquee
- Move Tool
- Lasso Tool
- Magic Wand
- Painting and Drawing Tools
- Editing and Retouching Tools
- Background Eraser (E)
- Erasing Image Background Color
- Guides, Grid and Slices
- Transform
- Layers
- Effects
- Filters
- Using the Color Tools
- Working with Palettes
- Actions palette
- History Palette
- Swatches Palette
- Brushes Palette
-

Unit 2 - Painting & drawing Tools

Number of lectures 8

Using The Brush and Pencil Tool

- Choosing a Brush Size
- Picking a Painting or Drawing Mode
- Setting Opacity And Flow
- Using Airbrush Mode
- Blending with the Smudge Tool
- Loading Brush Sets
- Working With The Brushes Palette
- Renaming Brush Presets
- Deleting Brush Presets
- Working with the Healing Brush
- Patching Images
-

Unit 3 - Color Management in Photoshop

Number of lectures 9

Applying Colors to your Image

- Using the Color Picker
- Selecting Colors with the Eyedropper Tool
- Working with Color Channels

- Displaying and Hiding Channels
- Mixing Color Channels
- Working with the Color Table
- Using Auto Color
- Using Special Color Effects
- Inverting Colors
- Working with Color Thresholds
- Equalizing Colors
- Posterizing Images
- Creating a Gradient Map
- Desaturated Colors
-

Unit 4 - Working with Layers Session 27:

Number of lectures 7

- Layer concepts
 - Creating New Layers
- Activating a Layer
- Duplicating Layers
- Arranging Layers
- Working with Layer Locks
- Deleting Layers
- Creating Layer Based Slice

Unit 5 - Using fills & styles Session 31: □

Number of lectures 11

Using the Pattern Stamp Tool

- Applying Pattern Fills
- Working with Styles Palette
- Understanding the Gradient Tool
- Customizing a Gradient
- Applying a Gradient
- Working with the Pattern Maker
- Creating your Own Patterns
- Working with the Layer Style Dialog Box
- Customizing Blending Options
- Drop Shadow
- Inner Shadow
- Outer Glow
- Inner Glow
- Bevel and Emboss

Continuous Internal Assessment
Assignments / Project

Mid Term test.

List of Text Books:

□ **Photoshop(R) 7: The Complete Reference**

by Laurie Ann Ulrich (Author)

Photoshop CC:

by Lesa Snider (Author)

List of Practicals:

Experiment 1. Moving objects from one layer to another using layer properties.

Experiment 2:Painting objects with Gradient and enhancing colour values

Experiment 3. Applying black and white effect to particular object in image.

Experiment 4. Applying motion filter effect.

Experiment 5:Implementation Lens flare, colour lense & light reflection

Experiment 6.Applying dispersion effect.

Experiment 7. Implementation of water illusion effect.

Experiment 8.Creating Gallery



St. Xavier's College – Autonomous Mumbai

Syllabus For 2nd Semester Courses in B. Voc (Software Development) (November 2016 onwards)

Contents:

Theory Syllabus for Courses:

S.BVS.2.05 – PHP and MySQL

S.BVS.2.06 – Operating Systems

S.BVS.2.07 – DBMS/SQL

S.BVS.2.08 – Object Oriented Programming using JAVA

Practical Course Syllabus for: S.BVS.2.PR

B. Voc. (Software Development) Semester II

COURSE: S.BVS.2.05

Title: PHP with MySQL

Learning Objective:

To equip with PHP for making dynamic web pages and deploy it over server. Students can apply this skill for getting job as a web developer.

Number of lectures: 45

UNIT 1

(15 lectures)

PHP Basic, Arrays and Functions, Class in PHP

Understand PHP software environment. PHP Basic syntax, PHP data Types, PHP Variables, PHP Constants, PHP Expressions, PHP Operators, PHP Control Structures, PHP Loops. Array declaration, PHP Associative Arrays, Array Iteration, PHP Multi-Dimensional Arrays, Array Functions. PHP Functions, Syntax, Arguments, Variables, References, Pass by Value & Pass by references, Return Values, Variable Scope, PHP include(), PHP require(). Class, object, Inheritance, Constructors and destructors Class Inheritance.

UNIT 2

(15 lectures)

String and File handling, Form and Session, JQuery and Ajax

Strings and Patterns, Matching, Extracting, Searching, Replacing, Formatting. File Handling reading and writing PHP Form handling, PHP GET, PHP POST, PHP Form Validation, PHP Form PHP Cookie handling, PHP Session Handling, PHP Login Session, Managing user Account, Using HTML,CSS, JQuery and Ajax in PHP.

UNIT 3

(15 lectures)

MySQL , Integration with PHP

Working with PHPMyAdmin. Create, delete and update record, Retrieving specific record. Understand CRUD operation, working with MySQL Truncate, MySQL Drop. WHERE condition, Order By, Group By, Having, LIKE, AND OR operators Importing and Exporting CSV Files. Creating an application in PHP.

TEXT BOOKS

1. Head First PHP and MySQL – O’relly Publication.

REFERENCES BOOKS

1. PHP – Complete Reference – TMH Publication

Website

1) <http://www.w3schools.com/php/>

OPERATING SYSTEM**Learning Objective:**

To develop the understanding the fundamentals of modern operating system

Number of lectures: 45

| Topic | No. Of lectures |
|--|------------------------|
| UNIT 1 : Introduction To Operating System History of Operating System, Types of Operating System Batch, Multiprogramming, Multitasking, Real-Time Operating System Structure-Layered, Monolithic, Microkernel | 07 |
| UNIT 2 Processes and Deadlock Process Management, Creation, Termination, Process States Thread Model and Implementation, Interprocess Communication & Synchronization Race Condition, Critical Region, Mutual Exclusion, Semaphores, Monitors Classical IPC Problems Dining Philosophers Problem, Readers and Writers Problem Process Scheduling (Preemptive and Nonpreemptive), Deadlock Deadlock Detection And Recovery Deadlock Avoidance, Deadlock Prevention | 15 |
| UNIT 3 Memory Management Static Allocation, Dynamic Allocation, Segmentation, Paging, Virtual Memory, Page Replacement Algorithms | 08 |
| UNIT 4 File System Files Naming, Structure, Types, Attribute File System Implementation Directory implementation | 08 |

| | |
|---|-----------|
| Allocation methods File sharing NFS Storage Structure: Disk Structure, Disk Management, Disk scheduling RAID Structure | |
| UNIT 5 IO Systems IO hardware DMA I/O interface Kernel I/O subsystem Introduction to STREAMS Distributed Operating System Introduction to Distributed Operating System Goals, Hardware Concepts, Software Concepts, Design Issues Types of distributed operating systems : NOS-remote login, remote file transfer, data migration, computational migration, process migration | 07 |

Books:

Modern Operating Systems, Andrew Tanenbaum,
Operating System Concepts, 8th Edition, Abraham Silberschatz, Peter B.Galvin, Greg Gagne, Wiley publication
Operating Systems, 2nd Edition, K. A.Sumitra Devi and N.P Banashree, SPD

Reference:

Operating Systems- A concept based approach , 2nd Edition, D.M. Dhamdhere, McGrawHill publications
Operating Systems, 3rd Edition , Godbole and Kahate, McGrawHill publications.

B. Voc. (Software Development) Semester II

COURSE: S.BVS.2.07

DBMS / Structured Query Language (SQL)

Learning Objective:

To learn the concept of database systems and software techniques for manipulating and maintaining databases

Number of lectures: 45

Unit 1 : Introduction to Databases

5 Lectures

What is database system, purpose of database system

Data models-file management systems, hierarchical databases, network databases

Relational data model- Primary key, foreign key, relationships

Codd's 12 rules

ER Diagrams

Unit 2 :Creating a database

15 Lectures

Table definitions - creating a table, drop a table, alter table, table aliases

Database updates-insert, update, delete, Adding data to the database, deleting data from the database, modifying data in the database

Data Integrity-What is data integrity, simple validity checking, integrity constraints, referential integrity

UNIT 3 : SQL Basics

15 Lectures

Simple Queries-Select statement, FROM clause, duplicate rows(DISTINCT), row selection, search conditions, sorting query results

Summary queries-Column functions(SUM, AVG, MIN, MAX, COUNT), grouped queries(GROUP BY clause)

UNIT 4 :Subqueries

10 Lectures

What is a subquery, subqueries in WHERE clause

Subquery search conditions-subquery comparison test(=, <>, <, <=, >, >=), set membership test(IN), the existence test(EXISTS), quantified tests(ANY and ALL)

Continuous Internal Assessment

Assignments / Project

Mid Term test.

References :

Text Books

1. James R. Groff and Paul N. Weinberg, "SQL- The complete reference", Second edition Tata McGraw-Hill

B.Voc (Software Development) Semester II

Course: S.BVS.2.08

Object Oriented Programming using JAVA

Learning Objective:

To learn Core Java fundamentals, To understand how java is used in object oriented programming. To develop strong foundation for building projects in java.

[Total Lectures 45]

UNIT 1 : Classes in java

[8]

General form of a class, declaring Objects, introducing Methods, Passing different parameter to method like int, double, String ,String[], Object , Constructors and types of Constructors, this keyword, Understanding Object class and its methods

UNIT 2: Inheritance, Packages and Interfaces

[10]

Inheritance

Inheritance basics,
using super,
creating multilevel hierarchy,
method overriding,
dynamic method dispatch,
using abstract classes ,
using final

Packages, Access Protection,

Importing Packages,

Defining a Package, Finding Packages and CLASSPATH

A Short Package Example,

Access Protection, An Access Example,

Interfaces, Defining an Interface

implementing Interfaces,

Variables in Interfaces,

Interfaces Can Be Extended

UNIT 3 : Collection Framework and Exceptional Handling

[10]

Collection interface

Collection classes

ArrayList, Vector, HashSet, Using Iterator

Exception handling

Exceptional Handling fundamentals,

Exception Types Uncaught Exceptions,

try and catch, multiple catch clauses,

nested try statements, throw, throws

finally

UNIT 4 : JDBC and Swing

[10]

Steps to connect to database from Java

Understanding ResultSetMetadata interface

Creating GUI with JTextField, JButton, JComboBox, JLabel, JRadioButton, JCheckBox.

Understanding Layouts GridLayout, FlowLayout, BorderLayout

Create Login screen and authenticating from database

UNIT 5 : String Handling

[7]

String constructor, Character extraction, charAt(), getChars(), toCharArray()
String comparison, equals() and equalsIgnoreCase(), startsWith(), endsWith()
compareTo(), Modify a string, substring(), concat(), replace(), trim(), StringBuffer
Constructor, length() and capacity(), charAt(), insert(), append(), reverse(), delete() and
deleteCharAt(), replace(), substring()

Continuous Internal Assessment

Assignments / Project

Mid Term test.

List of Text Books:

1. Java 2 Complete Reference by Herbert Schildt . --TMH Publication

List of Recommended Reference Books

- 1. Java 2 Programming Black Book, Holzner**
- 2. Programming with Java,E Balagurusamy**

B. VOC (Software Development)

Course: S.BVOC.2.PR

PRACTICALS

Practical list for PHP with MySQL

Practical No 1

Create Textbox and Button on screen. In Textbox user writes the string and on click of Button the string gets reversed using PHP.

Practical No 2

Develop UI using PHP Application for Basic Calculator showing functionality for ADDITION, SUBTRACTION, MULTIPLICATION and DIVISION.

Practical No 3

Develop a UI for to accept Registration Details of a student such as RNO, Name, DOB, GENDER, COURSE, HOBBY, HSC PERCENTAGE, ADDRESS, PHONE, EMAIL and CATEGORY. Now store these details in MySQL database on click of ADD button.

Also when the user puts only RNO and clicks on SEARCH button all data related to that student gets displayed.

Practical No 4

Develop a PHP Application to Authenticate User and password. If login is successful then forward user to result Page which shows the result of that student in proper report otherwise shows login failure Message. Also user should not be allowed to visit any page without proper login.

Practical No 5

Integrate Regular expression in PHP to do validation and then store the details in MySQL.

- 1)email
- 2)phone no beginning with 011
- 3)mobile no 10 digits and starts with 8 or 9 or 7
- 4)emp name
- 5)dob

Now display the name and dob of all employees who all are >30 years age on click of DISPLAY button.

Practical No 6

Integrate Ajax with PHP to search check whether the email already exists during registration of the user on a website.

Practical No 7

Create UI with File selection option and on selection, it displays the content of file on TextArea. Also give feature for modification of file.

Practical No 8

Design screen for inventory of a shop showing

| ITEM NO | DESCRIPTION | QTY | UNIT PRICE | TOTAL |
|---------|-------------|-----|------------|-------|
|---------|-------------|-----|------------|-------|

Enter appropriate information. On entering ITEMNO it automatically shows UNIT PRICE and DESCRIPTION from the database. User enters QTY and TOTAL gets auto listed. After entering all records(say 5 rows or more) GRAND TOTAL gets listed.

Practical No 9

Integrate JQuery and session, cookies with PHP and create shopping cart application for mobile phones.

Practical No 10

On entering DOB in text box and submitting, it displays the age of person in years month and days.

Note: Complete any 8 from the above list.

MOS PRACTICAL LIST

1. Create a Shell Program for accepting first name and last name as argument
2. Write a Shell Program for finding whether a number is even or odd
3. Write a Shell Program for finding the sum of digits of a given number.
4. Write a Shell Program for finding maximum of 3 numbers
5. Write a Shell Program for accepting percentage and displaying grade
6. Write a Shell Program for accepting date and display day assuming date 1 is
7. Write a Shell Program for displaying factorial of a number
8. Write a C Program for finding all prime numbers within a given range
9. Write a C Program for checking whether a word is a palindrome or not
10. Write a C Program for displaying Fibonacci series

PRACTICAL LIST FOR DBMS/SQL

Learning Objective:

To introduce the concept of databases and to use SQL software for handling large data operations using queries.

List of practicals:

- I) Design a table with the given fields. Use the drop table and alter table commands on the created table.
- II) Use the insert, update and delete commands on the tables.
- III) Apply the constraints like Primary Key , Foreign key, NOT NULL to the tables.
- IV) Write a SQL query to select data from tables.
- V) Write a SQL statement for implementing ALTER,UPDATE and DELETE
- VI) Write a query to implement the concept of Integrity constrains
- VII) Write a query for implementing the following functions:

SUM(),MAX(),MIN(),AVG(),COUNT()

- VIII) Write a subquery in the where clause of the main SQL query using the subquery comparison test(=, <>, <, <=, >, >=), set membership test(IN), the existence test(EXISTS)

Assessment:

CIA and End Semester Exam based on the practicals will be conducted.

JAVA PRACTICAL LIST

Learning Objective:

To introduce the concept of object oriented programming using JAVA programming language.

List of practicals:

1. Design a program to implement the concept of a class, object and methods
Define a class Box with instance variables height, length and breadth and methods volume() and area() to display the volume of the box and area of base of the Box.
Define a method getData() to initialize the instance variables. Create 2 objects of this class and display the area and volume.

- Also implement the concept of constructors and type of constructors (parameterized constructors)
2. Design a program to implement the concept of inheritance
Create a class Rectangle that includes the data member for length and width as well as constructors to assign values and methods to display them. Derive a class named block that contains additional members to store height and constructors to assign the values and method to display the height.
 3. Design a program to implement interfaces
 4. Create a login screen and authenticate the user by matching username and password through database
 5. Design a GUI application to input the name, roll no and marks of five subjects and display the percentage of the student
 6. Design a program to implement exception handling : try and catch, throw, throws finally
 7. Design a program to implement String handling functions
 8. Write java program to find whether the string is a palindrome or not

Assessment:

CIA and End Semester Exam based on the practicals will be conducted.



**St. Xavier's College–Autonomous
Mumbai
Syllabus
For 3rd Semester Courses in
B.Voc (Tourism)
and
B. Voc (Software Development)
From June 2015 onwards**

General Education Component

Theory Syllabus for Courses:

| | |
|----------------------|-------------------|
| S.BVS.3.01/A.BVT.3.0 | Media & society |
| 1 | |
| S.BVS.3.02/A.BVT.3.0 | Social analysis |
| 2 | |
| S.BVS.3.03/A.BVT.3.0 | Economic analysis |
| 3 | |
| S.BVS.3.04/A.BVT.3.0 | Human rights |
| 4 | |

SEMESTER - III

COURSE : S.BVS.3.01/A.BVT.3.01

MEDIA & SOCIETY

LEARNING OBJECTIVE:

- Introduce students to history, evolution and development of mass communication around the world with specific reference to India
- Study evolution of mass media as an important social institution
- Critically analyse media messages
- Develop understanding of media's role in the contemporary world

[Total Lectures 45]

Unit I: Introduction to Mass Communication

(8 lectures)

- Meaning and definitions of communication
- Types of Communication: Intrapersonal, Interpersonal, group, public, mass
- Elements and Process of Communication
- Models of Communication
- Functions of Mass Communication

Unit II: Introduction to Mass Media

(6 lectures)

- Meaning and definition of mass media
- Difference between mass communication and mass media
- Tools of mass communication: Traditional and Folk
 - Print- Newspapers, Books, Magazines
 - Broadcast- Radio and Television
 - Films

Internet
Advertising and PR

Unit III: Understanding Contemporary Media (Part 1)

(12 lectures)

- News:
 - a) Newspapers
 - Components of a newspaper
 - Yellow Journalism
 - Inverted Pyramid
 - Normative Theories
 - Impact of ownership on news agenda
 - b) News Channels –News as entertainment
 - “Breaking News”
 - Twitter the new source
- Image Analysis – Basics of Semiotics
 - John Berger: Ways of Seeing
- Advertising-Types of advertisements
 - Issues of representation, stereotypes, gender roles
 - Persuasion and Consumerism
 - Changing trends in advertising messages

Unit IV: Understanding Contemporary Media (Part 2)

(13 lectures)

- Indian (Hindi) Films –Issues of representation
 - Changing image of “Hero” in Hindi Films
 - Bollywood outside India
 - Minority representation and Indian cinema
- Television-Understanding target audience
 - Depiction of “Indian culture”, family values, women’s status and role
 - Reality shows
- Internet-Impact on communication, freedom of speech
 - Internet and youth culture
 - Social Networking sites, anonymity and identity
 - Hate messages and abuses on Twitter

Unit V: Important Debates

(6 lectures)

(Optional, if the above mentioned syllabus falls short. Or instead of a separate unit, these can be added as case studies in Unit 3 and 4)

- Beef ban in Maharashtra

- Cricket and Nationalism (special focus on India-Pakistan)
- AIB Roast Controversy, internet, censorship, social significance
- Media's depiction of war and terrorism

Note:

Units 3,4 and 5 will involve reading materials and classroom discussions. The concepts mentioned in outline will be taught from application point of view instead of the theoretical aspect.

SEMESTER - III

COURSE : S.BVS.3.02/A.BVT.3.02

SOCIAL ANALYSIS

LEARNING OBJECTIVES:

- a. To introduce students to a basic conceptual understanding of society to enable social analysis
- b. To create an awareness of social realities among students
- c. To apply this skill in the vocation opted for by the students by using examples from their relevant fields of study

[Total Lectures: 45]

1. An introduction to the structure of society [5]
 - Evolution of society
 - Social Groups
 - Social Interaction

2. Social Analysis [4]
 - Importance of social analysis
 - Sociological Imagination as a tool of analysis
(biography and history, private and public issues)

3. Understanding Culture [8]
- Components of culture
 - Popular Culture
 - Cultural diversity
4. Social Institutions - [12]
- Family
 - Religion
 - Education
5. Social Stratification [12]
- Gender
 - Caste
 - Class
 - Race
6. Tourism, Technology and Society [4]
- ideas of the tourist gaze, tourism and leisure in society
 - software technology and its impact on society

REFERENCES

1. Abraham, Francis *Sociology*
2. Mill, C.W. 'The Promise' excerpt from *The Sociological Imagination*
3. Nayar, Pramod, *An Introduction to Cultural Studies*
4. Storey, John, *Popular Culture*
5. Mohanty, Manoranjan (ed) *Caste, Class & Gender*

SEMESTER - III

COURSE : S.BVS.3.03/A.BVT.3.03

ECONOMIC ANALYSIS

LEARNING OBJECTIVES:

1. To introduce students to basic microeconomics and macroeconomics concepts
2. To encourage students to relate macro theory to the real world and in particular newspaper economics before their exposure to the microeconomic approach.
3. To enable the students to understand the impact of current Indian and International macroeconomic policy on their lives.

[Total Lectures: 45]

UNIT I:**(7 lectures)**

Introduction to Economics:

Basic / Common concepts/terminology in economics frequently used in newspapers/financial /economic dailies/weeklies e.g., free/economic goods ,white goods, factors of production, infrastructure ,etc.

UNIT II:**(7 lectures)**

National Income :

- i. Circular flow of economic activities.
- ii. National Income: concepts of GDP, NNP etc. and measurement
- iii Case Study: Contribution of tourism and IT sectors to the national income.

UNIT III:**(7 lectures)**

Price Movements:

- i. Meaning , types and causes(demand pull, cost push and wage –price spiral)
- ii. Effects of inflation. Measures to control/ mitigate inflation, Index Numbers, techniques, wholesale and consumer price indices.
- iii. Case Study: Inflationary pressures in the neighbourhood.

UNIT IV:**(8 lectures)**

Banking and Financial Markets:

- i. Money Market ,Capital Market and Commercial Banks ;Types ,Functions
- ii. Central Bank: Role, Monetary Authority.
- iii. Case Study: A comparative study of a Commercial and Co-operative bank

UNIT V:**(8 lectures)**

International Economics:

- i. Balance of payments: Concepts of current and capital account, trade deficits (current and capital).
- ii. Foreign Exchange: Determination of foreign exchange rate. Concepts of devaluation, depreciation, appreciation, revaluation, quantitative easing.

iii. Case Study: An analysis of working of forex dealers.

UNIT VI:

(8 lectures)

Globalisation:

- i. Issues connected to liberalization and privatization policies.
- ii. WTO: Accords (AoA, TRIMs, TRIPs and GATS)
- iii. Case Study: An analysis of an IT firm and travel company in India.

First C.I.A.:MCQ Test

Second C.I.A.: Project (designed to test application of theory to reality)

List of Recommended Reference Books:

Basic Reference Book:

Mankiw,N.G.(2002), *Principles of Macroeconomics*. Thomson Asia Pte. Ltd. ,Singapore.

Additional References:

1.Begg,Dornbusch and Fisher, *Macro Economics*,

2.Dwivedi,D.N.,*Principles of Economics* , Vikas Publishing House ,New Delhi,2008

8.Froyen,R.T.*Macroeconomics: Theories and Policies*, Delhi :Pearson Education Asia,2001

SEMESTER - III

COURSE : S.BVS.3.04/A.BVT.3.04

HUMAN RIGHTS

Learning Objectives:

1. To familiarize the students with the philosophy and the concept of Human Rights. □
2. To create an understanding of the various systems and provisions that can foster □ Human Rights. □
3. To sensitize students to the diverse Human Rights issues in terms of their complex □ nature.

Number of lectures: 45

UNIT– I CONTEXTUALIZING HUMAN RIGHTS

[10 Lectures]

- a. Meaning and Characteristics □
- b. Origin and development of the discourse. □
- c. Changing philosophies □

(Handouts to be given to the students on the history of the development of human rights as a concept and practice)

UNIT– II ISSUES AND VULNERABLE GROUPS

[23 Lectures]

This module will be analysed at the macro and micro dimensions in terms of the significance of the issues and their relevance to the meaning and characteristics of human rights.

Women, children, minorities (ethnic, linguistic and religious), sexual minorities, refugees, victims of state-sponsored violence, prisoners of conscience, displaced communities, prisoners and under trials, abortion, euthanasia, capital punishment, HIV/AIDs patients, Dalits, Tribals, senior citizens, differently-abled persons and the rights of consumers.

UNIT– III ISSUES AND VULNERABLE GROUPS

[12 Lectures]

Monitoring and Safeguarding Mechanisms

This unit looks at monitoring and safeguarding mechanisms both at the international and national (Indian) levels.

The Indian Context

a. Legal Framework b. NHRC c. Repressive Laws

International Mechanisms: Conventions, treaties and global bodies Role of Civil Society and Non-Governmental Organisations. Freedom of expression and the media.

Continuous Evaluation: Group projects and presentations primarily from Units Two and Three.

List of Recommended Reference Books

1. Ackerly, B., A. (2008). Universal human rights in a world of difference. Cambridge, Cambridge University Press. □
2. Avonius, L. D. K. (2008). Human rights in Asia: a reassessment of the Asian values debate. Hampshire, UK, Palgrave Macmillan Ltd. □
3. Christie, K. D. R. (2001). The politics of human rights in East Asia. London, Pluto Press. □
4. Heard, A. (1997). Human Rights: Chimeras in Sheep's Clothing? <http://www.sfu.ca/~aheard/intro.html>, accessed on January 1, 2011. □
5. Makau, M. (2002). Human Rights: A Political and Cultural Critique. Pennsylvania, University of Pennsylvania Press. □
6. Nirmal, C. J., Ed. (2000). Human Rights in India. New Delhi, Oxford University Press. □
7. O'Byrne, D., J. (2003). Human rights: an introduction. New Delhi, Pearson. □
8. Pereira, W. (1997). Inhuman Rights. New Delhi, Other India Press. □
9. Phillips, D., A. (2009). Human Rights. New York, Chelsea House: An Imprint of Infobase Publishing. □
10. Poonacha, V. (1995). Gender within the Human Rights Discourse. Mumbai, Research Centre for Women Studies, SNDT University. □
11. Raman, K. (1998). Universality of the Human Rights Discourse: An Overview.

□Mumbai, Department of Civics and Politics, University of Mumbai. □

12. Sen, A. (1997) Human Rights and Asian Values. Sixteenth Morgenthau Memorial
□Lecture on Ethics & Foreign Policy . New York, Carnegie Council on Ethics and
International Affairs. [http://www.carnegiecouncil.org/resources/publications/
morgenthau/254.html/_res/id=sa_File1/254_sen.pdf](http://www.carnegiecouncil.org/resources/publications/morgenthau/254.html/_res/id=sa_File1/254_sen.pdf), accessed on January 1, 2011. □
13. Shabbir, M., Ed. (2008). Human Rights in the 21st Century: Challenges Ahead. Jaipur &
New Delhi, Rawat Publications.



St. Xavier's College–Autonomous Mumbai Syllabus

For 3rd Semester Courses in B. Voc
(Software Development)
From June 2016 onwards

Skill Component courses

Theory Course Syllabus for:

- S.BVS.3.05 Quantitative techniques
- S.BVS.3.06 Advanced SQL with Oracle
- .S.BVS.3.07 Advanced Java
- .S.BVS.3.08 Open Source Platforms (Linux, RoR)

Practical Course Syllabus for:

S.BVS.3.PR

B. Voc. (Software Development) Semester – III

COURSE : S.BVS.3.05

QUANTITATIVE TECHNIQUES

LEARNING OBJECTIVE:

To learn basics of counting principals and statistics to prepare students for Quantitative analysis which is useful in advanced IT applications.

[Total Lectures: 45]

UNIT 1 : COUNTING PRINCIPLES

[15]

Permutations
Combinations
Probability
Conditional probability
Bayes theorem
Applications of Bayes theorem
Operations on sets
The inclusion Exclusion Principle

UNIT 2 : BASICS OF STATISTICS

[18]

Classification and tabulation
Frequency distribution
Measures of central tendency
 Arithmetic average
 Median
 Mode
 Geometric mean

Measures of dispersion
 Range
 Mean deviation
 Inter quartile range
 Standard deviation
Coefficient of variation
 Skewness introduction
 Measures of Skewness
 Correlation
Methods of studying correlation

UNIT 3: THEORETICAL DISTRIBUTION

[12]

 Binomial distribution
 Probability functions of binomial distributions
 Constants of binomial distributions
Poisson distributions
 Characteristics of poisson distributions
 Constants of poisson distributions
 Fitting of poisson distributions
Normal distributions
 Properties of normal distributions
 Importance of normal distributions
 Standard normal distributions.

Continuous Internal Assessment
Assignments / Project
Mid Term test.

Text Books

1. Statistics by V.K .Kapoor and D.C.Sancheti
2. Discrete Structures by B kolman,R.C.Busby.

B. Voc. (Software Development) Semester – III

COURSE : S.BVS.3.06

ASQL WITH ORACLE

LEARNING OBJECTIVE:

To develop the skill of data base programming using advanced SQL concepts.

[Total Lectures: 45]

UNIT 1 : Advanced SQL Concepts

[7]

Writing Basic SQL Select Statements,
Joins (Displaying Data from Multiple Tables),
Aggregating Data using Group Functions,
Creating Views, inline views,

Controlling User Access, grant, revoke, rollback.
Creating Other Database Objects (Sequences, Indexes and Synonyms)

UNIT 2 : Procedural language

[15]

Types of PL/SQL blocks,
Identifiers, types of Identifiers,
Declarative Section, variables,
Scalar Data Types, The %TYPE Attribute,
PL/SQL Block Syntax,
Deployment of SQL Functions in PL/SQL, Nested Blocks, Operators

Control Structures:

Conditional processing using IF Statements and CASE Statements, Loop Statement, While Loop Statement, For Loop Statement, the Continue Statement, Composite Data Types, Handle Exceptions with PL/SQL

Unit 3

[15]

Stored Procedures

What is procedure? Syntax of creating procedure,
Creating procedure with parameters, IN parameter, OUT parameter, methods of passing parameter, Invoking procedure from other procedure,
The PL/SQL Execution Environment, Differences between Anonymous Blocks and Subprograms, Declaring subprograms, Handled exceptions, removing procedures

Functions:

Basic concept of functions, different types of functions,
Advantages of using Stored Functions,
The steps to create a stored function,
Invoke User-Defined Functions in SQL Statements,
Restrictions when calling Functions,
Control side effects when calling Functions,
View Functions Information, Functions and Procedures

Unit 4 : Dynamic SQL

[8]

Triggers:

Definition, the Trigger Event Types and Body,
Business Application Scenarios for Implementing Triggers,
Create DML Triggers using the CREATE TRIGGER Statement and SQL Developer, Body, and Firing (Timing),
Statement Level Triggers and Row Level Triggers,
Creating Compound, DDL and Event Database Triggers,
Compound Trigger Structure for Tables and Views, instead of trigger, DDL trigger.
Comparison of Database Triggers and Stored Procedures

**Continuous Internal Assessment
Assignments / Project
Mid Term test.**

Text Books

1.Murach's Oracle SQL and PLSQLby Joel Murach, Murach and Associates.

2.Oracle Database 11g PL/SQL Programming Workbook By: Michael Mc Laughlin,John Harper

3.Oracle PL/SQL Programming Fifth Edition By Steven Feuerstein, Bill Pribyl

B. Voc. (Software Development) Semester – III

COURSE : S.BVS.3.07

ADVANCED JAVA

LEARNING OBJECTIVE:

To equip the students with skills required in software industry. Students will learn the latest of Java and apply the skill learnt for projects.

[Total Lectures: 45]

UNIT 1 Java Database Connectivity [JDBC]

[10]

Introduction to JDBC Architecture,
Type I Driver (JDBC-ODBC Bridge), Types of Driver,
Understanding Statement,
PreparedStatement,
CallableStatement Interface through examples,

Understanding ResultSet,
ResultSetMetadata interface through examples,
Difference between execute(), executeUpdate(), executeQuery() method, Transactions,
Commits, Rollbacks, and Savepoints Batch Processing

UNIT 2 Servlet [10]
What is a Servlet?, Servlet Lifecycle, Servlet API, GenericServlet and HttpServlet,
ServletConfig & ServletContext, Handling Form data with get and post request,
Initializing a servlet, Filtering Requests and Responses, Redirecting Request, Finalizing a
servlet, Using cookies and session tracking

UNIT 3 JSP [15]
What is JSP page?, Lifecycle of JSP page, JSP syntax using Directive, Declaration,
Expression, Scriptlet, Comment, Using javabeans and Action Tag in JSP, JSP implicit
objects, Using JSP standard tag library (JSTL), Session management, Exception handling,
Custom tag, Transferring Control to Another Web Component, Using JDBC in JSP

UNIT 4 Basic of Struts2 [10]
Understanding MVC architecture, Struts2 framework
Working with Struts2 Action – Introducing Struts 2 actions, Packaging your actions,
Implementing actions

Continuous Internal Assessment

Assignments / Project

Mid Term test.

Text Books

1. Java Servlet Programming, Author: Jason Hunter, O'Reilly Publication
2. Struts 2 Black Book
3. Database Programming with JDBC and Java – O'Reilly Publication

B. Voc. (Software Development) Semester – III

COURSE : S.BVS.3.08

OPEN SOURCE PLATFORMS: LINUX AND ROR

Learning Objective:

To encourage open source product usage for developing programs. Ruby on Rails is used for faster web development in Linux platform.

[Total Lectures: 45]

UNIT 1

(15 lectures)

Linux Basic

History of Linux, Comparison of Linux with Windows, Linux as Layered structure.

Linux commands

ls, rm, cp,cd, mkdir, mv, more, head, tail, pwd, chmod, tar, gzip, echo, date, cal, bc, cut, paste, sort command. grep with all options, awk with all options, man, info, ps, kill, fg,bg, redirection and pipe command. Linux Tree Structure, Creating user and assigning password, creating user defined command.

Linux shell scripts

vi Editor Basic Concepts, Shell Programming, Types of Shell, Environment Variables, Programming Construct: loops, conditions, logical operators, case constructs, if statement. Using regular expression in shell programming.

UNIT 2

(15 lectures)

Features of Ruby, variables in Ruby-global variable, instance variable, local variable
Creating class. Initialize method, accessor and setter methods. Class methods, to_s method, access control, class inheritance, method overriding. Using Object oriented features in Ruby. What is Regular Expression? Using Regular Expression in Ruby. DBI Architecture, CRUD operation with database in Ruby.

UNIT 3

(15 lectures)

RoR Framework, Directory structure. Advantages of using RoR.
creating view in RoR, creating layout in RoR, Integrating RoR with database.
Scaffolding in RoR, Integrating CSS with RoR. Using gems in RoR. Validation on server and client side. Creating reports in RoR.

Continuous Internal Assessment

Assignments / Project

Mid Term test.

TEXT BOOKS

1. The Ruby Programming Language – David Flanagan – O’Reilly Publication
2. Linux and Unix –Sumitbha Das—TMH

REFERENCES BOOKS

1. Ruby On Rails Up And Running—O'relly publication

Websites

- 1) <http://www.tutorialspoint.com/ruby> 2) <https://rubymonk.com/>
- 3) <https://www.railstutorial.org/book>

BVOC SOFTWARE DEVELOPMENT

COURSE : S.BVS.3.PR

PRACTICALS

PRACTICAL LIST for ASQL with Oracle

I) Select queries and joins

- a. Select queries on single table using alias, where and order by clause.
- b. Select queries on single table using aggregate functions and group by clause.
- c. Querying data from multiple Tables using ROLLUP ,CUBE operators.

II) Sub queries, DML and DDL

- a. Querying single and multiple tables using sub queries.
- b. Manipulating data (Insert, update and delete)
- c. Creating simple tables and tables with constraints.

III) Creating database objects, Controlling user access and using set operators

- a. Creating Views, Sequences, Indexes and synonyms.
- b. Granting and revoking privileges on user objects.

IV) Working with advanced sub queries

- a. Multiple column sub queries, sub queries in from clause,
- b. Scalar sub queries and correlated sub queries,

V) Basic PL/SQL,

- a. Creating anonymous PL/SQL blocks.
- b. manipulating data using PL SQL
- c. Process a number of rows from a table and populate another table with the results using a FOR loop.

VI) Functions and Stored Procedures

- a. Creating and invoking functions from SQL statements.
- b. Creating and invoking stored procedures.

VII) Working with triggers

- a. create a trigger to update a table only during office timing.
- b. Create row triggers for updating values.
- c. Create procedures that will be invoked from the triggers.

VIII) Working with INSTEAD OF triggers, business rules and recompiling procedures, functions, packages and views.

- a. Create instead of triggers for views.
- b. Implement business rules.
- c. create trigger for automatic updating tables..

PRACTICAL LIST FOR ADVANCED JAVA

Learning Objective: To equip the students with skills required in software industry. Students will learn the latest of Java through Servlets, JSP, JSTL. Students can apply the skill learnt for projects.

- I) Write a program to insert/update the records of the table using JDBC. Make use of the PreparedStatement interface.
- II) Write a servlet to demonstrate session handling .
- III) Write a servlet which displays the cookie name and the value.
- IV) Create an application using JSP declaration, scriptlet, expression and JSP directive tags
- V) Create an application which connects the Java Bean to a JSP page by using the JSP action tags.
- VI) Create an html page with fields, eno, name, age, desg, salary. Now on submit this data to a jsp page which will update the employee table with matching eno.
- VII) Write JSP code to do login authentication from database and redirect to new JSP page as per the role assigned in the database.
- VIII) Create an application to make use of JSTL core tags and formatting tags.
- IX) Create an application to connect to the database and retrieve the records using JSTL sql tags.
- X) Using struts validation framework do validation for 1)email 2)phone 3)emp no 4)emp name 5)age

Note: Complete any 8 from the above list.

PRACTICAL LIST FOR LINUX AND ROR

Learning Objective:

To encourage open source product usage for developing programs. Ruby on Rails is used for faster web development.

Practical No 1

Create text file using vi editor in Linux with following details about emp with at least 10 records eno ename dept designation age salary.

Using AWK as a reporting tool with proper header and footer to find

- a) All employee who work for sales dept
- b) Average salary of all employees
- c) Name and designation of all employees who earn more than Rs. 40000
- d) Average salary of employees working with HR dept
- e) Sum of salary of all the employees
- f) Name the emp who all work for HR dept and earn less than Rs.20000

Practical No 2

Using Ruby find

- a) factorial of a number
- b) Sum of digits of a number
- c) Reverse a given string

Practical No 3

Using Ruby display the contents of a file.

Practical No 4

Create table student(rno,name,dob,course,photo) in MySQL. Now from Ruby using store corresponding information of 5 student. Now display information of particular student whose rno is asked.

Practical No 5

Create a registration form in html and develop a ruby/RoR application to accept Registration Details form user and Store it into the database table.

Practical No 6

Create a web application to show the form and apply corresponding validation.

username:

password:

email:

gender:

postalcode:

Practical No 7

Create class called student and demonstrate inheritance, polymorphism, encapsulation on it using ruby.

Practical No 8

Demonstrate the use of Scaffolding in RoR.

Practical No 9

Demonstrate creating blog using RoR.



**St. Xavier's College–Autonomous
Mumbai
Syllabus
For 4th Semester Courses in
B.Voc (Tourism)
and
B. Voc (Software Development)
From November 2015**

General Education Component

Theory Syllabus for Courses:

S.BVS.4.01/A.BVT.4.01 **MEDIA & SOCIETY PART 2**

S.BVS.4.02/A.BVT.4.02 **CONTEMPORARY SOCIAL ISSUES**

S.BVS.4.03/A.BVT.4.03 **MICROECONOMICS**

S.BVS.4.04/A.BVT.4.04 **FUNDAMENTALS OF THE INDIAN CONSTITUTION**

Title: Media & Society Part 2

Learning Objectives:

- To build on the knowledge acquired in Semester III: Media and Society Part 1
- To develop an understanding of the role of media in contemporary society
- To critically analyze media's depiction of the world
- To engage with important media theories

NO. OF LECTURES

Unit I: Media and Power

12

1. Political Economy of Mass Communication in India
2. Media & Propaganda
3. Noam Chomsky: Manufacturing Consent

Unit II: Media and Nationalism

12

1. Benedict Anderson: Imagined Community
2. Nationalism in Indian Context
3. Role of Indian Cinema in Nationalism
4. Role of Sports in Nationalism

Unit III: Orientalism

12

1. Edward Said: Orientalism
2. Analysis of popular media
3. Critique of Orientalism

Unit IV: Cinema and City (Mumbai)

9

1. The cinematic city: Depiction of Mumbai in Hindi and regional films
2. Mumbai through documentaries
3. Single screen to multiplex: Changes in film viewing and architecture of Mumbai

Evaluation:

CIA 1: Class Test

CIA 2: Group Assignment on Cinema and City. Analysing the depiction of Mumbai in Hindi and regional cinema as well as documentaries.

References:

Books

1. Aggarwal Virbala (2002). *Media and Society Challenges and Opportunities*. New Delhi: Concept Publishing Company
2. Chakravarty, Suhas; V (1997) *Press and Media- The Global Dimensions*. New Delhi: Kanishka Publication
3. Chomsky Noam (1994). *Manufacturing Consent: The Political Economy of Mass Media*. London: Vintage Publishers
4. Clarke, David (ed) *The Cinematic City*
5. Fernandes Naresh (2013). *City Adrift: A Short Biography of Bombay*. New Delhi: Aleph Book Company
6. Guha Ramchandra (2011). *India After Gandhi*. Picador India
7. McQuail, D (2010). *McQuail's Mass Communication Theory*. New Delhi: Sage Publication
8. Majumdar, Ranjini. *Bombay Cinema*
9. Nayar, Pramod. *Political Economy of Communications in India*
10. Prakash Gyan (2011). *Mumbai Fables*. Noida: Harper Collins Publication

Articles

1. Anderson Benedict. Extract, *Imagined Communities*. 1991. Verso. London
2. Appadurai Arjun (1996) 'Playing with Modernity: The Decolonization of Indian Cricket' in Carol Breckenridge (ed.) *Consuming Modernity: Public Culture in Contemporary India*, New Delhi
3. Chatterjee Partha (1993) 'Whose Imagined Community'
4. Editorial, Cricket: Imagining the Nation, EPW, March 31, 2007
5. Nandy Ashis et al, Extract, *Creating a Nationality*. 1995. New Delhi
6. Said Edward, Extract from *Orientalism*, 'Introduction'

Audio-Visual Resources

1. Control Room (Documentary)
2. Peace, Propaganda and Promised Land (Documentary)
3. Invictus (2009) Director: Clint Eastwood
4. Remember The Titans (2000) Director: Boaz Yakin
5. Edward Said: Orientalism (Documentary)
6. Chimamanda Adichie: The Danger of a Single Story (TED Talk)
7. Homeland (TV Series)
8. Slumdog Millionaire (2008) Director: Danny Boyle

ST. XAVIER'S COLLEGE (AUTONOMOUS)

S.Y.B.Voc

Course: 4.02

Title: CONTEMPORARY SOCIAL ISSUES

OBJECTIVES:

- To introduce and analyze the impact of contemporary social issues in our everyday lives
- To facilitate an objective understanding through readings and research papers on social issues
- To apply this skill in the vocation opted for by the students by using examples from their relevant fields of study
- Each module must be discussed in a socially inclusive manner

| | NO. OF LECTURES |
|---|----------------------------|
| UNIT I: India's Global Footprint -India's emerging new role in the global world | 8 |
| 1. India's Demographics and Geographical Orientation | |
| 2. The Development debate and the role of international funding agencies | |
| 3. Globalization or Glocalization | |
| UNIT II: The Indian Diaspora–Identity and its social implications | 8 |
| 1. Rise of the middle class | |
| 2. Politics of Identity and Representation. | |
| 3. Marginalization of social groups | |
| UNIT IV: Technology and Communication and Social Change | 6 |
| 1. India's technology story –a social audit | |
| 2. Digital and Social media –its strengths and challenges | |
| 3. Communication and social change- bridging the rural-urban divide? | |
| UNIT V: Space and Mobility | 6 |
| 1. Right to space and opportunities | |
| 2. Right to the city | |

3. Public and Private space
4. Cyber space

UNIT VI: Social issues (with special focus on age groups, differently abled and gender) 15

1. Conflict, Terrorism and Peace
2. Formal and Informal Sector
3. Urbanism as a way of life(food, leisure, gaming...)
4. Religion and Values
5. Secularism and Communalism

EVALUATION:

- First CIA Test: short essay type questions
- Second CIA Test: Presentations, where students will be expected choose a social issue in contemporary India, and formulate and express their understanding and opinions of the issue.
- End Semester Exam: Essay type questions/ short answer/objective

Annotated Reference List:

- Kadekar L.N., Sahoo, A.K., Bhattacharya G., (2009), *Indian Diaspora: Historical & Contemporary Context*, Rawat Publication
- Kabeer, Naila (2008), *Gender & Social Protection: Strategies in the Informal Sector*, Routledge
- Mandal, Amal&Laha, S.S. (eds. 2012), *Dynamics of Development & Discontent*, Bookwell.
- Mander, Harsh (2015), *Looking Away: Inequality, Prejudice and Indifference in New India*, Speaking Tiger Books
- Mansback, Richard W. & Taylor, Kirsten L. (2012), *An Introduction to Global Politics (2nd Edition)*, Routledge
- Manchanda, Rita (2010), *States in Conflict with their Minorities*, Sage
- Phadke, Shilpa; Khan, Sameera; Ranade, Shilpa (2011), *Why Loiter?*, Penguin India
- Sahoo, A.K. &Maharaj, Brij. (Edss, 2007), *Sociology of Diaspora: A reader Vol. 1 & 2*, Rawat Publication

Sen, Amartya (2007), *Identity & Violence- The Illusion of Destiny*, W.W. Norton & Co.

Thapan, Meenakshi (ed., 2010), *Contested Spaces: Citizenship and Belonging in Contemporary Times*, Orient Blackswan

ST. XAVIER'S COLLEGE (AUTONOMOUS)

S.Y.B.Voc

Course: 4.03

Title: MICROECONOMICS

Learning Objectives:

- To introduce students to basic microeconomics and some additional macroeconomics concepts.
- To enable the students to understand the nature of markets, pricing and behaviour of other individual economic variables.
- To encourage students to relate micro theory to the real world and in particular newspaper economics and macroeconomic issues.

Total No of Lectures: 45

NO. OF LECTURES

UNIT I:

4

Introduction to Microeconomics:

1. Distinction between microeconomics and macroeconomics.
2. Importance of the study of microeconomics.

UNIT II:

12

Demand and Elasticity:

1. Determinants of demand, the Law of Demand

Case Study: Impact of technology on demand.

2. Meaning and types of elasticity, eg. price, income, cross and promotional elasticities.

Simple numerical problems based on elasticity concepts.

3. Advertising and demand, need and impact of advertising, factors affecting advertising.

Case Study: The relative importance of advertisements in Tourism and

Software industries.

UNIT III:

7

Production:

1. Concepts of production, economies and diseconomies of scale-external and internal.

Case Study: Comparison of diseconomies of scale in large private and public sector companies.

2. Supply: Concepts of stock and supply. Factors affecting supply.

Case studies on the influence of technology on:

- i. Supply
- ii. Local kiranas /grocers

UNIT IV:

7

Costs and Revenue:

1. Types of costs: money and real, fixed and variable, implicit and explicit, manufacturing and selling , opportunity cost , depreciation.

Significance of cost concepts to a firm.

2. Revenue: Concepts of Total, Marginal and Average Revenue ,

Break even point.

UNIT V:

Objectives of a Firm: **5**

Profit and sales/revenue maximization, growth, etc.

Case studies.

UNIT VI : **10**

Markets:

Types of markets: Perfect competition, monopoly, monopolistic competition, oligopoly.

Case studies: oligopoly in tourism sector, nature of the market in the software industry.

First C.I.A.: MCQ Test

Second C.I.A.: Project (designed to test application of theory to reality)

Reference Books :

1. Ahuja.H.L., *Advanced Economic Theory*, S. Chand.

2. Mankiw,N.G.(2002), *Principles of Microeconomics*.

Additional References:

1. Samuelson,A,P and Nordhaus,D,W, *Economics*, McGraw Hill.

2. Dwivedi,D.N, *Principles of Economics* , Vikas Publishing House ,

New Delhi,2008

ST. XAVIER'S COLLEGE (AUTONOMOUS)

Title: Fundamentals of the Indian Constitution [45 Lectures]

LEARNING OBJECTIVES

- To understand the basics of the Indian Constitution
- To familiarize students with the working of the governmental machinery

Unit I: Salient Features of the Indian Constitution

[10 Lectures]

1. Origin and features of the constitution
2. Fundamental Rights
3. Basic Structure Doctrine

Unit II: The Union Executive: The President

[10 Lectures]

1. Qualifications for election as President
2. Procedure for impeachment of the President
3. Powers of the President
4. Constitutional limitations on Presidents' powers

Unit III: Prime Minister & Council of Ministers

[15 Lectures]

1. Election of Prime Minister
2. Appointment of Ministers
3. Powers, functions and role of the cabinet
4. Special position of the Prime Minister in the Council of Ministers
5. Presidential System versus Parliamentary System of Government

Unit IV: The Judiciary

[10 Lectures]

1. Organization of the Judiciary (Hierarchy, Jurisdiction)
2. Judicial activism-Public Interest Litigation

C.I.A. 2- Presentation on Importance of Constitution vis-a-vis laws related to field of study

Text Books:

1. Jain, Ashok, *Indian Political System*
2. Wadhvani, Manohar R., *Indian Political System*

List of Reference Books:

1. Basu, Dr. Durga Das, *Introduction to The Constitution of India* (21st edition), Lexis Nexis
2. Austin, Granville (1999), *The Indian Constitution: Cornerstone of a Nation*
3. Hasan, Zoya, Sridharan, E., and Sudarshan, R. (Eds.) (2002), *India's Living Constitution: Ideas, Practices, Controversies*, New Delhi: Permanent Black
4. Kashyap, S. (Ed.) (1997), *Judicial Activism and Lokpal*, Uppal Publishing House, New Delhi
5. Noorani, A.G. (2000), *Constitutional Questions in India: The President, Parliament and the States*



St. Xavier's College–Autonomous Mumbai Syllabus

For 4th Semester Courses in B. Voc
(Software Development)
From November 2016

Skill Component courses

Theory Course Syllabus for:

- S.BVS.4.05 C#
- S.BVS.4.06 ASP.NET
- S.BVS.4.07 Data Warehousing and mining
- S.BVS.4.08 Mobile App Development using Android I

Practical Course Syllabus for:

S.BVS.4.PR

PROGRAMMING IN C#**Learning Objective:**

To equip the students with skills required in software industry. Students will learn the latest development in C# and apply the skill learnt in projects.

Number of lectures: 45

| Name of the unit | No. Of lectures |
|--|------------------------|
| UNIT 1:Understanding .NET environment .NET framework, Common Language Runtime, framework base classes, visual studio IDE, .NET languages, benefits of .NET approach what is C#, characteristics of C#, Applications, how does C# differ from C++ or Java, C# and .NET | 5 |
| UNIT 2: C# language Basics Overview of C# Literals, Variables, Data types, Operators, Expressions, Branching and looping operations, methods, arrays, strings | 10 |
| UNIT 3:C# language advanced features Classes and Objects: class, objects, constructors, static members, static constructors, private constructors, copy constructors, destructors, member initialization, this reference, nesting of classes Inheritance and Polymorphism: Classical inheritance, containment inheritance, Defining a subclass, visibility control, Defining subclass constructors, multilevel inheritance, Overriding methods, hiding methods, Abstract classes, abstract methods Interface: Defining an interface, extending an interface, Implementing interface, Difference between interface and abstract class Operator overloading | 15 |
| UNIT 4: Delegate, Events and Exception handling in C# Delegate declaration, delegate methods, Delegate's instantiation, delegate invocation, Using delegates, multicast delegates, Types of errors, exceptions, Syntax of exception handling code, Multiple catch statement, The exception hierarchy, general catch handler, Using final statement, nested try blocks, Throwing our own exceptions, Checked and unchecked operators, Using exceptions for debugging | 15 |

Continuous Internal Assessment

Assignments / Project

Mid Term test.

Text Books

1. Programming in C# By E Balagurusamy

Reference Books

2. C# and .NET 4 by Christian wrox publication.

3. C# 2010 and .NET 4 platform by Andrew Troelsen Apress publication.
4. C# 3.0 A beginners guide by Herbert Schildt

B. Voc. (Software Development) Semester – IV

COURSE : S.BVS.4.06

ASP.NET

LEARNING OBJECTIVE:

To equip the students with skills required in software industry.

Students will learn the latest of ASP.NET in framework 4.x/5.x.

Students can apply the skill learnt in developing website or application.

[Total Lectures 45]

Unit 1. Introduction, Controls, Event and web service

[15]

Introduction:

- Understanding Visual studio IDE environment
 - 1) Design view
 - 2) Source view
 - 3) Output window
 - 4) Error list window
 - 5) Intellisense
 - 6) Property window
 - 7) Object Browser window
 - 8) Start page
 - 9) Toolbar and Toolbox

- ASP.NET life cycle.
- Common Language Runtime (CLR) architecture.
- Using .NET Framework Class Library.

Different Controls: Introduction to control class, TextBox control, Button Control, Label Control, Image control, ImageButton control ,

ImageMap control, DropDownList control, CheckBox control, RadioButton control, Table control, Calendar control, SiteMap control, TreeView control, Menu control, Validation controls, Login controls, Database controls.

Windows Presentation Foundation (WPF).

Event handling: Application_Start, Application_End, Page_Load, Page_Unload, *Click event*: OnClick, *TextChanged event*: OnTextChanged, *Command event*: OnCommand, *CheckedChanged event*: OnCheckedChanged, *SelectedIndexChanged event*: OnSelectedIndexChanged, postback events

Using event argument etc.

Web service: What is a web service? SOAP and Web service. Creating web service, consuming web service.

Unit 2. Validation, Navigation, and Ajax in ASP.NET

[15]

Validation Control: Introduction, basic validation controls, validation techniques, using advanced validation controls like:

Regular Expression Validator Control, Compare Field Validator Control

Range Validator Control, Validation Summary Control, Custom Validator Control

State Management: Using view state, using session state, using application state, using cookies and URL encoding.

Master Pages: Creating master pages, content pages, nesting master pages, accessing master page controls from a content page.

Navigation: Understanding Site Maps, Using the Sitemap Path Control, Formatting the Sitemap Path Control, Using the Menu Control, Using Tree View Control.

Ajax: Introducing AJAX, Working of AJAX, Using ASP.NET AJAX server controls.

Database Elements:

- 1) ADO.NET Object model
- 2) Data Binding
- 3) Using Connection, Command,
- 4) DataReader classes, Queries returning result sets
- 5) Passing parameters in queries
- 6) Using Repeater control
- 7) Data Adapter, Using Data Set (Typed), Data Table, Data Row & Data Column
- 8) Introducing the ADO.NET Entity Framework.
- 9) Mapping Your Data Model to an Object Model
- 10) CRUD with ASP.NET
- 11) Authentication and Authorization with ASP.NET

LINQ:

- 1) Introducing LINQ and its Architecture
- 2) LINQ to Objects
- 3) LINQ to XML
- 4) LINQ to ADO.NET

Crystal Report:

- 1) Adding a Crystal Report to an ASP.NET Application
- 2) Inserting Fields, Text, and Special Fields
- 3) Sorting, Grouping, and Subtotaling
- 4) Using Select Expert
- 5) Dynamic Formatting
- 6) Using the Crystal Reports Viewer

Continuous Internal Assessment

Assignment on unit 1, unit 2, unit 3

Mid Term Test.

BOOKS:

- 1) ASP.NET 4.0 in simple steps dreamtech press
- 2) Murach's ASP.NET 4 Web Programming with C# 2010, 4th Edition, Anne Boehm, Joel Murach, SPD.
- 3) Integrating Crystal Reports into an ASP.NET Application
By Vincent Varallo Wrox Publication

REFERENCES:

- 1) ASP.NET – The Complete Reference Tata McGraw Hill.
- 2) Beginning ASP.NET 4: in C# and VB by Imar Spaanjaars Wrox Publication.
- 3) C# and .NET 4 by Christian wrox publication.

RESOURCE:

<http://www.tutorialspoint.com/asp.net>

B. Voc. (Software Development) Semester – IV

COURSE : S.BVS.4.07

DATA WAREHOUSING AND MINING

Learning Objective:

To know the basic concepts of Data Warehousing and data mining.

Number of lectures: 45

| Name of the unit | No. Of lectures |
|---|------------------------|
| UNIT 1:INTRODUCTION TO DATA WAREHOUSING AND DIMENSIONAL MODELLING | |
| Escalating need for strategic information Failure of decision support system Operational versus decision support system Data warehousing-the viable solution Defining data warehouse Data warehouse and data marts Architectural types Principles of dimensional modelling, star schema, advantages of star schema, snowflake schema, fact tables | 12 |
| UNIT 2: ETL PROCESS | |
| ETL overview : Data extraction, data transformation, data loading OLAP in data warehouse : demand for OLAP, major features and functions, OLAP models | 13 |
| UNIT 3: DATA MINING | |
| The development of data mining , Basic data mining tasks, data mining issues, data mining verses Knowledge discovery in data bases. Classification introduction, Statistical based algorithms ,Bayesian classification, distance based algorithms, Simple approach ,K nearest neighbour ,Decision tree based algorithms, ID3. Introduction of clustering, outliers, Hierarchical algorithms ,agglomerative algorithms, single link algorithm, complete link algorithm, average link algorithm, Partitional algorithms, Minimum spanning tree, K-means clustering, nearest neighbour algorithm | 20 |

Continuous Internal Assessment
Assignments / Project
Mid Term test.

Text Books

1. Data warehousing fundamentals by Paulraj Ponniah
2. Data Mining Introductory and Advanced Topics, M. H. Dunham, Pearson Education

B. Voc. (Software Development) Semester – IV

COURSE : S.BVS.4.08

ANDROID APP DEVELOPMENT

Learning Objective: To learn the concept of android program and develop app using java and XML.

[Total Lectures 45]

UNIT 1: Introduction to Android

[5]

What is Android, History and Version, Architecture, Android Components (Activities, Services and Broadcast Receivers), Android life cycle.

UNIT 2:Android Development Studio

[5]

Installation & Configuration, API,SDK Manager, AVD Manager, Emulator, File Structure(MainActivity.java, activity_main.xml, Manifest.xml)

UNIT 3:Android Layouts & Permission Manager.

[5]

Layouts(Flow Layout, Absolute Layout, Table Layout),Attributes.

Permissions- <uses-permission android:name="android.permission.INTERNET"/>

<uses-permission android:name="android.permission.SEND_SMS"/>

<uses-permission android:name="android.permission.CALL_PHONE" />

UNIT 4:Xml-GUI & Event Handling

[15]

Screen Orientation, Style Themes, View Text View, Edit View, Toast, Button, Toggle Button, Radio Button, Checkbox Button ,Alert Dialogue, Prompt Dialogue, Confirm Dialogue, Date Picker, Time Picker, Rating Bar, Auto complete text view, Tab Swipe, Tab Host, Image View, Animation View, Media Player, Audio Video, Menubar, Menu, MenuItem, Popup Menu.

UNIT 5:-Android-Java Classes & Methods

[5]

Activity Class & onCreate() Method,Intent Class & StartACTivity() Method,

Life Cycle Methods-

onCreate(),onStart(),onResume(),onPause(),onStop(),onDestroy(),onRestart()

UNIT 6:Android App(.apk) Development

[10]

Debugging and developing apk file, Splash effect app, Sending Email app, Sending SMS app, Calling app, Online, website app, Offline website app, Music app, video app, calculator app.

Continuous Internal Assessment

Assignments / Project

Mid Term test.

List of Text Books:

1.Android Design Pattern:Interaction Design Solution for Developers.-(By: Greg Nudelman)

2 .Programming Android-(By: Zigurd Mednieks, Laird Dornin, G. Blake Meike & Masumi Nakamura)

PRACTICALS**PRACTICAL LIST FOR C#**

1. Write a console application to take input from the user and perform simple mathematical calculations on them-addition, subtraction, multiplication and division and display the result to the user.

2. Write a console application to generate the following series.(make use of nesting of loops)

| | | | |
|-----------|-----------|-----------|-----------|
| 1 2 3 4 5 | 1 2 3 4 5 | 5 4 3 2 1 | 1 |
| 1 2 3 4 | 2 3 4 5 | 4 3 2 1 | 2 2 |
| 1 2 3 | 3 4 5 | 3 2 1 | 3 3 3 |
| 1 2 | 4 5 | 2 1 | 4 4 4 4 |
| 1 | 5 | 1 | 5 5 5 5 5 |

3. Write a console application to sort an array in ascending order.
4. Write a console application to generate Fibonacci series.
5. Write a console application to generate prime numbers in a given range.
6. Write a console application to find the sum of digits of a number and the reverse of the number.
7. Write a console application to generate the multiplication table of a number until the limit entered by the user.
8. Write a console application to find the factorial of a number .
9. Write a console based application to incorporate the features of class and object. The class should have default as well as parameterised constructors, member functions taking arguments.
10. Write a console based application to incorporate the feature of function overloading.
11. Write a console based application to incorporate the feature of overriding.
12. Write a console based application to incorporate the feature of inheritance.
13. Write a console based application to incorporate the feature of operator overloading.
14. Write a console based application to incorporate the feature of delegates and events
15. Write a console based application to incorporate the feature of abstract classes and interfaces
16. Write a console based application to incorporate exception handling.

ASP.NET PRACTICALS

LEARNING OBJECTIVE:

To equip the students with skills required in software industry. Students will learn the latest of ASP.NET in framework 4.0/4.x. Students can apply the skill learnt in developing website or application with practice from practical.

Attempt any 8 practical's from the list.

Practical No 1:

Create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa. Also write an ASP program to consume this web service.

Practical No 2:

Design a UI and use validator for following conditions

- A password which is entered twice for confirmation
- The age of the user to be over 21
- The date to be after the 10/10/2000

Practical No 3:

Design a Login screen in ASP.NET which accepts user name and password. On submit it should check from the server whether the user exists or not . If the user exists in web server then he/she should be directed to proper web page with welcome message.

Practical No 4:

Write the following application.

The initial page is called Validator.aspx and it has 7 text boxes representing

(Name, Family Name, Address, City, Zip Code, Phone and e-mail address)

and a Check button.

User gets the following page after clicking on Check button:

Validators - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites RSS Print Mail News Groups

Address <http://localhost:4811/class4/Validator1.aspx>

Google G Go 13 blocked Check AutoLink

the Page is Valid

Insert your details :

Name:

Family Name: differs from name

Address: at least 2 chars

City: at least 2 chars

Zip Code: (xxxxxx)

Phone: (xx-xxxxxxxx / xxx-xxxxxxxx)

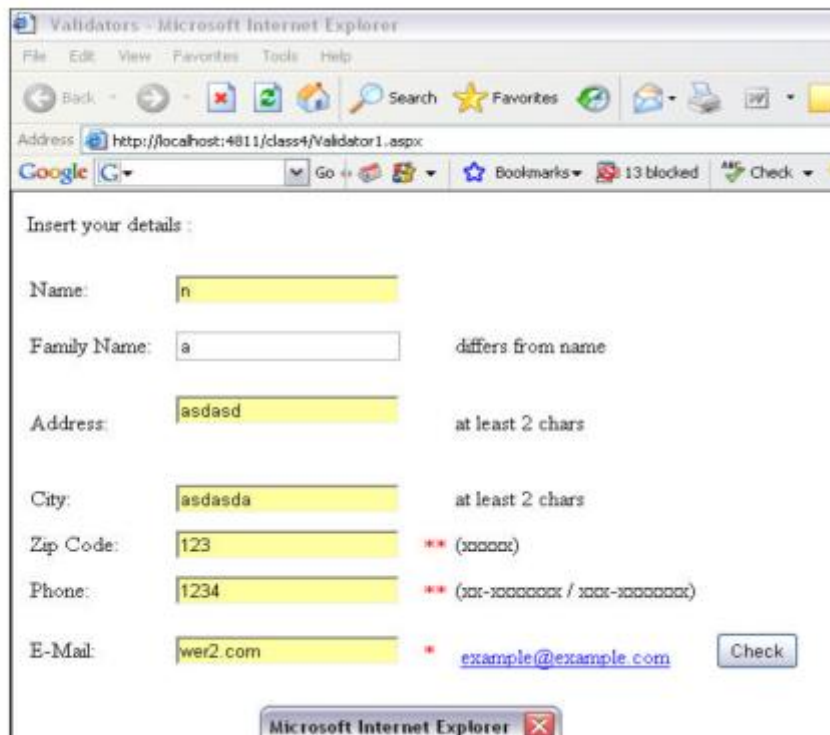
E-Mail: example@example.com

The required validation actions are:

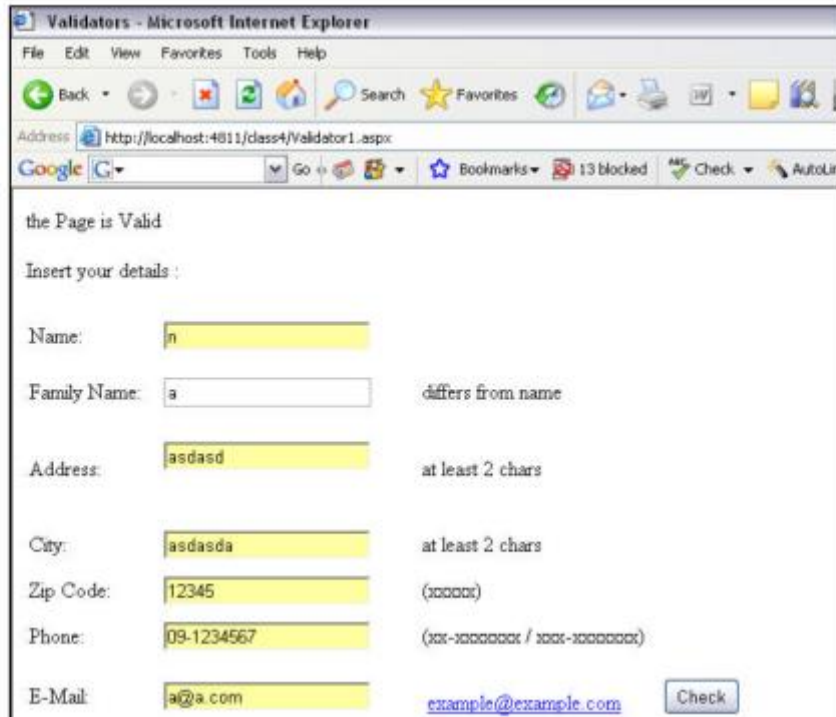
- name different from family name,
- address at least 2 letters,
- city at least 2 letters,

- zip-code 5 digits,
- phone according to the format XX-XXXXXXX or XXX-XXXXXXX,
- e-mail is a valid email.

After entering some of the details correctly user gets the following message:



And after a correct submission of all the details:



Practical No 5:

Create a screen which accepts student rollno . On click of submit it should display student result in the gridview with fields

| Name | Course Marks | TotalMarks | Percentage |
|------|--------------|------------|------------|
|------|--------------|------------|------------|

The database table contains table called student(rollno, name, course , address, year)

Result(rollno,subject,marks, totalmarks)

Practical No 6:

Using crystal report design simple marksheet for SSC result. The data should appear dynamically from database.

Practical No 7:

Design UI for credit card data entry. User writes all the details such as card no(16 digits) expiry date CVV no etc. These details should be validated using validators and database for appropriate fields. After verification it asks for amount of transaction with password. If amount < balance display insufficient balance else display page which tells transactions successful.

Practical No 8:

Create a Web application that illustrates the use of themes and master pages with Site-Map. And create a web page with CSS.

Practical No 9:

Write a Program in ASP that has a form taking the users name as input. Store this name in a permanent cookie & whenever the page is opened again, then value of the name field should be attached with the cookie's content.

Practical No 10:

Demonstrate user's Authentication and Authorization in ASP.NET

Practical No 11:

Demonstrate the use ad-rotator to change advertisements on client side request.

Practical No 12:

Create a small online quiz application which displays the set of questions (differently to different users) based on the authentication and subject selection. At the end it displays the marks scored by candidate. Also it doesn't allow any page view without authentication (use session concept).

Practical No 13:

Create a registration form for students and demonstrate CRUD operation on it in ASP.NET.

Practical No 14:

Demonstrate use of System.Collections.Generic to store the details of students with Id, Name, Course, and D.O.B etc. Now store these details in database using Collection. Add search feature which searches record as per id.

Practical No 15:

Create a web application to insert 3 records inside the SQL database table having following fields (DeptId, DeptName, EmpName, Salary). Update the salary for any one employee and increment it to 15% of the present salary. Perform delete operation on 1 row of the database table.

Continuous Internal Assessment

Conducting practical test

PRACTICAL LIST FOR DATA WAREHOUSING

1. Importing the source data structures in Oracle.
2. Design the target data structure using Oracle
3. Create the target structure in OWB (Oracle Web Builder)
4. Designed and build the ETL mapping
5. Perform the ETL process and transform it to data marts.
6. Create the cube and process it in OWB.

DATA MINING

SOFTWARE WEKA

- 1) Create training data using ARFF File.
- 2) Implementation of Bayesian classification using any standard training data.
- 3) Implementation of decision tree based algorithm using any standard training data.
- 4) Implementation of agglomerative algorithms using any standard training data.
- 5) Implementation of divisive algorithms using any standard training data.

ANDROID Practical List:

Learning Objective:

To introduce the concept android programming and develop app using android development studio.

List of Practicals:

Experiment 1. Android event handling using "onClick" event Listener and "actionListener".

Experiment 2: Android Background Music Activity

Experiment 3. Open a Website using android app.

Experiment 4: Sms Manager Activity

Experiment 5: Working with HTML webpages(Offline) in Android app

Experiment 6. Android app to play video file with controls

Experiment 7. Splash Screen effect

Experiment 8. Android Dialoge Box

Assessment:

CIA and End Semester Exam based on the practicals will be conducted.



St. Xavier's College–Autonomous Mumbai

Syllabus For 5th Semester Courses in B.Voc (Tourism) B.Voc (Software Development) (June 2016 Onwards)

Theory Syllabus for Courses:

General Education Component

S.BVS.5.01/A.BVT.5.01: Elements of Digital Design

S.BVS.5.02/A.BVT.5.02: Entrepreneurship I

S.BVS.5.03/A.BVT.5.03: Psychology

General Education Component

B. Voc. Semester V

COURSE: S.BVS.5.01/BVT.5.01

ELEMENTS OF DIGITAL DESIGN

Learning Objective: Learn to explore the beauty of digital design software from the practical to the painterly artistic. In 45 sessions, practice the editing concepts to understand how Photoshop will help to create successful customized images.

Number of lectures: 45

Unit 1 - Getting started with Photoshop

Number of lectures 10

- Fundamentals of Photos editing softwares
- What new in photoshop
- Basics of Images
- Vector Images
- Bitmap Images
- Interfacing with the Photoshop Desktop
- Working with The Menu Bar and Tool Box
- File and Edit Menus
- The Image Menu
- The Layer Menu
- The Select Menu
- The Filter Menu
- The View Menu
- The Help Menu
- ToolBox
- New Features in Photoshop
- Custom Brushes
- Healing Brush
- Picture Package
- Web Photo Gallery
- Spell Checking
- Opening Recent Images
- Importing Images
- PDF Image

- Annotations
- WIA Support
- Placing Images
- Optimizing Images
- File Browser
- PDF Security
- Understanding the Selecting Tools
- Rectangular Marquee
- Move Tool
- Lasso Tool
- Magic Wand
- Painting and Drawing Tools
- Editing and Retouching Tools
- Background Eraser (E)
- Erasing Image Background Color
- Guides, Grid and Slices
- Transform
- Layers
- Effects
- Filters
- Using the Color Tools
- Working with Palettes
- Actions palette
- History Palette
- Swatches Palette
- Brushes Palette
-

Unit 2 - Painting & drawing Tools

Number of lectures 8

Using The Brush and Pencil Tool

- Choosing a Brush Size
- Picking a Painting or Drawing Mode
- Setting Opacity And Flow
- Using Airbrush Mode
- Blending with the Smudge Tool
- Loading Brush Sets
- Working With The Brushes Palette
- Renaming Brush Presets
- Deleting Brush Presets
- Working with the Healing Brush
- Patching Images
-

Unit 3 - Color Management in Photoshop

Number of lectures 9

Applying Colors to your Image

- Using the Color Picker
- Selecting Colors with the Eyedropper Tool
- Working with Color Channels
- Displaying and Hiding Channels
- Mixing Color Channels
- Working with the Color Table
- Using Auto Color
- Using Special Color Effects
- Inverting Colors
- Working with Color Thresholds
- Equalizing Colors
- Posterizing Images
- Creating a Gradient Map
- Desaturated Colors
-

Unit 4 - Working with Layers Session 27:

Number of lectures 7

- Layer concepts

Creating New Layers

- Activating a Layer
 - Duplicating Layers
 - Arranging Layers
 - Working with Layer Locks
 - Deleting Layers
- Creating Layer Based Slice

Unit 5 - Using fills & styles Session 31:

Number of lectures 11

Using the Pattern Stamp Tool

- Applying Pattern Fills
- Working with Styles Palette
- Understanding the Gradient Tool
- Customizing a Gradient
- Applying a Gradient
- Working with the Pattern Maker
- Creating your Own Patterns

- Working with the Layer Style Dialog Box
- Customizing Blending Options
- Drop Shadow
- Inner Shadow
- Outer Glow
- Inner Glow
- Bevel and Emboss

Continuous Internal Assessment
Assignments / Project

Mid Term test.

List of Text Books:

- **Photoshop(R) 7: The Complete Reference**
by Laurie Ann Ulrich (Author)

Photoshop CC:

by Lesa Snider (Author)

List of Practicals:

Experiment 1. Moving objects from one layer to another using layer properties.

Experiment 2:Painting objects with Gradient and enhancing colour values

Experiment 3. Applying black and white effect to particular object in image.

Experiment 4. Applying motion filter effect.

Experiment 5:Implementation Lens flare, colour lense & light reflection

Experiment 6.Applying dispersion effect.

Experiment 7. Implementation of water illusion effect.

Title: ENTREPRENEURSHIP (Part I)

Learning Objectives:

To equip students with knowledge of creating, establishing, managing, developing or pruning enterprises, either of their own or to understand enterprises that they will be dealing.

Total Lectures: 60

UNIT 1: The Entrepreneurial Evolution

20 lectures

- Nature & Development of Entrepreneurship.
- The Entrepreneurial Decision Process.
- Venturing- New Venture Formation.
- Types of Enterprises.
- Role of Entrepreneurship.
- The Entrepreneurial & Intrapreneurial Debate.
- Identifying & Evaluating Opportunity for Enterprise Development.
- Resource requirement to set-up & start-up & operate Enterprise.
- Strategic/Tactical/Operational orientation of establishing Enterprise.
- Management Structure.
- Entrepreneurial background & characteristics.
- Role modeling of successful entrepreneurs.
- Cross border Entrepreneurship.
- Case Studies.

UNIT 2: Creativity in Enterprise

20

lectures

- Idea Generation.
- Creative Problem Solving.
- Product Identification & Development.
- Technology in Enterprise establishment.
- Enterprise as a multi-dimensional entity.
- The Business Plan.
- The Functional Plan.

UNIT 3: Start-up establishment of Enterprise

20

lectures

- Sources of Funding.

- Venture Capital.
- Risk evaluation of Enterprise.
- Enterprise valuation.
- Leading and Managing the Enterprise.
- Growth Strategies.
- Exiting the Enterprise.
- Ending the Enterprise.

Evaluation:

- CIA 1 (20 marks): Class Test
- CIA 2 (20 marks): Project/Assignments
- End Term Exam: 60 marks (Written exam)

TEXT BOOKS:

- Entrepreneurship – 6th Edition. Robert D Hisrich, Michael P Peters, Dean A Shepherd. McGraw-Hill.
- Entrepreneurship – David Stokes, Nick Wilson, Martha Mador. South-Western Cengage Learning.

REFERENCES:

- The Oxford Handbook of Entrepreneurship – Mark Casson, Bernard Yeung, Anuradha Basu, Nigel Wadson. Oxford University Press.
- Entrepreneurship in India. Dr Sanjay Tiwari, Dr Anshuja Tiwari. Sarup & Sons.
- Entrepreneurship Development in India. Sami Uddin. Mittal Publications.
- Dynamics of Entrepreneurial Development & Management - Vasant Desai. Himalaya Publishing House.
- Patterns of Entrepreneurship Management. 3rd Edition. Jack M Kaplan, Anthony C Warren. John Wiley & Sons Inc.

Title: PSYCHOLOGY

Learning Objectives:

- *To enhance the thinking, emotions, communication and interpersonal skills of students so that they can be good at customer handling and services.*
- *Enable them to maintain a healthy work-life balance.*

Total Lectures: 60

Unit 1: Understanding the Self

15 lectures

- Self esteem and Subjective well being
- Positive Thinking and Optimism
- Creative Thinking, Problem Solving and Decision Making
- Goal setting and Time management
- Motivation
- Emotional intelligence

Unit 2: Working with others

15 lectures

- Communication (Verbal and Non Verbal)
- Empathy and Listening skills
- Giving and receiving Feedback
- Conflict Management
- Team Building and Team work

Unit 3: Customer Satisfaction

15 lectures

- Psychology of customer service: Creating and sustaining customer relationships
- Product knowledge
- Sales and its relation with customer satisfaction
- Handling complaints

Unit 4: Balancing work and life

15 lectures

- Work Life Conflict
- Impression Management
- Job satisfaction and Employee satisfaction
- Stress Management

Evaluation:

- CIA 1 (20 marks): Class Test
- CIA 2 (20 marks): Assignments
- End Term Exam: 60 marks (Written exam based on case study analysis)

References

Feldman.R.,(2016), *Understanding Psychology* ,Tenth Edition, McGraw Hill Education Pvt.Ltd, India.

Kumar.V., (2008), *General Psychology*, Himalaya Publishing House ,India.

Weiten.W., Hammer.E.& Dunn.D.,(2009), *Psychology and Contemporary Life: Human Adjustment*, Wadsworth,Cenagage Learning,USA.



St. Xavier's College–Autonomous Mumbai Syllabus

For 5th Semester Courses in B. Voc
(Software Development)
From June 2016, onwards

Skill Component courses

Theory Course Syllabus for:

S.BVS.5.04 Mobile App Development using Android II

S.BVS.5.05 DOTNET Technologies ASP.NET

Practical Course Syllabus for:

S.BVS.5.PR

S.BVS.5.PROJ Project - I

ADVANCED ANDROID PROGRAMMING

Learning Objective: To master the Android development using Advanced programming features using XML, Hypertext and scripting and desktop language.

[Total Lectures 60]

UNIT 1: Android Device Integration

[7]

CameraApp, Camera Recording, Bluetooth, WIFI, Contacts, Audio Capture, Theme/style.Thread.

UNIT 2: Custom Gesture

[7]

CommonGesture, TouchEvent, MotionEvent, PinchExample, Clipboard, ImplicitIntent, TransitionDemo, NewDrawer Demo, Scene Transition

UNIT 3: Android API using HTML & script

[6]

Online Website, Offline website, Android event with Javascript, WebViewClient/WebChromeClient, File reading, Fragment Example

UNIT 4: Database, fonts & Explicit events

[15]

SQLite Database, MaterDetailsFlow, Contact list database, Custom font, ClipBaord, CardDemo,

Card Demo, AppBar, FabExample, ExplicitEvent, CustomePrintDatabase, StorageDemo

UNIT 5:Location Based Services

[15]

Network Connectivity, GPS, Google Map, Permission Manager, Local Bound, Remote Bound, Send Broadcast, Broadcast receiver

Continuous Internal Assessment

Assignments / Project

Mid Term test.

List of Text Books:

- 1. Android Design Pattern:Interaction Design Solution for Developers.(By: Greg Nudelman)*
- 2. Programming Android-(By: Zigurd Mednieks, Laird Dornin, G. Blake Meike & Masumi Nakamura)*

ASP.NET

LEARNING OBJECTIVE:

To equip the students with skills required in software industry.

Students will learn the latest of ASP.NET in framework 4.x/5.x.

Students can apply the skill learnt in developing website or application.

[Total Lectures 60]

Unit 1. Introduction, Controls, Event and web service

[20]

Introduction:

- Understanding Visual studio IDE environment
 - 1) Design view
 - 2) Source view
 - 3) Output window
 - 4) Error list window
 - 5) Intellisense
 - 6) Property window
 - 7) Object Browser window
 - 8) Start page
 - 9) Toolbar and Toolbox

- ASP.NET life cycle.
- Common Language Runtime (CLR) architecture.
- Using .NET Framework Class Library.

Different Controls: Introduction to control class, TextBox control,

Button Control, Label Control, Image control, ImageButton control ,

ImageMap control, DropDownList control, CheckBox control, RadioButton control, Table control, Calendar control, SiteMap control , TreeView control , Menu control, Validation controls, Login controls, Database controls.

Windows Presentation Foundation (WPF).

Event handling: Application_Start, Application_End, Page_Load , Page_Unload, *Click event* :OnClick , *TextChanged event:* OnTextChanged , *Command event:* OnCommand , *CheckedChanged event:* OnCheckedChanged , *SelectedIndexChanged event:* OnSelectedIndexChanged, postback events

Using event argument etc.

Web service: What is a web service? SOAP and Web service. Creating web service, consuming web service.

Unit 2. Validation, Navigation, and Ajax in ASP.NET

[20]

Validation Control: Introduction, basic validation controls, validation techniques, using advanced validation controls like:

Regular Expression Validator Control, Compare Field Validator Control

Range Validator Control, Validation Summary Control, Custom Validator Control

State Management: Using view state, using session state, using application state, using cookies and URL encoding.

Master Pages: Creating master pages, content pages, nesting master pages, accessing master page controls from a content page.

Navigation: Understanding Site Maps, Using the Sitemap Path Control, Formatting the Sitemap Path Control, Using the Menu Control, Using Tree View Control.

Ajax: Introducing AJAX, Working of AJAX, Using ASP.NET AJAX server controls.

Unit 3. Database with ADO.NET, LINQ and Crystal Report

[20]

Database Elements:

- 1) ADO.NET Object model
- 2) Data Binding
- 3) Using Connection, Command,
- 4) DataReader classes, Queries returning result sets
- 5) Passing parameters in queries
- 6) Using Repeater control
- 7) Data Adapter, Using Data Set (Typed), Data Table, Data Row & Data Column
- 8) Introducing the ADO.NET Entity Framework.

- 9) Mapping Your Data Model to an Object Model
- 10) CRUD with ASP.NET
- 11) Authentication and Authorization with ASP.NET

LINQ:

- 1) Introducing LINQ and its Architecture
- 2) LINQ to Objects
- 3) LINQ to XML
- 4) LINQ to ADO.NET

Crystal Report:

- 1) Adding a Crystal Report to an ASP.NET Application
- 2) Inserting Fields, Text, and Special Fields
- 3) Sorting, Grouping, and Subtotaling
- 4) Using Select Expert
- 5) Dynamic Formatting
- 6) Using the Crystal Reports Viewer

Continuous Internal Assessment

Assignment on unit 1, unit 2, unit 3

Mid Term Test.

BOOKS:

- 1) ASP.NET 4.0 in simple steps dreamtech press
- 2) Murach's ASP.NET 4 Web Programming with C# 2010, 4th Edition, Anne Boehm, Joel Murach, SPD.
- 3) Integrating Crystal Reports into an ASP.NET Application
By Vincent Varallo Wrox Publication

REFERENCES:

- 1) ASP.NET – The Complete Reference Tata McGraw Hill.
- 2) Beginning ASP.NET 4: in C# and VB by Imar Spaanjaars Wrox Publication.
- 3) C# and .NET 4 by Christian wrox publication.

RESOURCE:

<http://www.tutorialspoint.com/asp.net>

PROJECT- I**[Total Lectures 180]**

Project will carry 6 credits with 200 Marks.

Students can do live project in industry or in-house project.

Students are expected to give time equivalent to 12 lecture periods/week, out of which 3 periods will be contact time for guidance from internal guide. There will be continuous internal assessment (CIA) for 40% of the credit (80Marks).

This will consist of:

CIA 1 → assessment of synopsis and viva on it

CIA 2 → analysis of requirement gathering, system design including DFD,

Use case, ER, Normalization, Context level diagrams etc.

Remaining 60% of the credit (120Marks) will be end semester examination consisting of documentation, presentation and viva. This will be jointly examined by the project guide and external examiner under the subheading of marks as follows:

| | | | | |
|---------------|---|------|--|-----------------------------|
| Documentation | Presentation (validation, database handling) | viva | Execution of various modules with report and testing | System design understanding |
| 30 | 30 | 20 | 30 | 10 |

List of project categories

- 1) Hardware projects based on microcontroller / PIC
- 2) Networking projects
- 3) Mobile projects
- 4) Wireless technologies
- 5) Website projects
- 6) Desktop application
- 7) Real-time application in Linux/ Unix
- 8) Or any other suitable project which is approved by the project guide

Suggested format for project report S.BVS.6.PROJ

- 1) Cover page
- 2) Certificate from college(for in-house / external project)
- 3) Synopsis of project
- 4) Project report
 - a) Table of content
 - b) Definition of problem
 - c) Objective and scope of project
 - d) System analysis and design
 - i) User requirement
 - Functional requirement
 - Non-functional requirement
 - ii) Normalization
 - iii) DFD , context level diagrams
 - iv) Flowchart, ER diagram
 - v) Use case diagrams
 - e) Feasibility study
 - i) Technical feasibility
 - ii) Economical feasibility
 - iii) Operational feasibility
 - f) Software engineering paradigm applied
 - g) Software and hardware requirement specification
 - h) PERT chart, Gantt chart
 - i) Coding
 - j) Code efficiency
 - k) Validation checks
 - l) Testing
 - Test techniques(white box and black box testing)
 - Writing Test cases
 - Using test data
 - Generating defect reports
 - Use of testing tools(manual/automated)
 - m) System security measures
 - n) Cost estimation of project
 - o) Reports
 - p) Screen shots
 - q) Future enhancement
 - r) Bibliography
 - s) Glossary
- 5) Students have to submit black book to college(1 per group) in A4 size with one side written (approx 150-200 pages) along with CD having full documentation and codes
- 6) Students doing project in industry will have to get certificate from the company.

ANDROID Practical List:

Learning Objective:

To introduce the concept android programming and develop app using android development studio.

List of Practicals:

- Experiment 1. Android **Camera App(Customized preview)**
- Experiment 2: Android **Voice Recording App**
- Experiment 3. Video Recording app
- Experiment 4: Common Gestures
- Experiment 5: Android Text to speech
- Experiment 6. Bluetooth scanner App/Barcode Reader
- Experiment 7. WI-FI Scanner & pairing
- Experiment 8. Sqlite Database to add, find & delete (Contact List) etc

ASP.NET PRACTICALS

LEARNING OBJECTIVE:

To equip the students with skills required in software industry. Students will learn the latest of ASP.NET in framework 4.0/4.x. Students can apply the skill learnt in developing website or application with practice from practical.

Attempt any 8 practical's from the list.

Practical No 1:

Create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa. Also write an ASP program to consume this web service.

Practical No 2:

Design a UI and use validator for following conditions

- A password which is entered twice for confirmation
- The age of the user to be over 21
- The date to be after the 10/10/2000

Practical No 3:

Design a Login screen in ASP.NET which accepts user name and password. On submit it should check from the server whether the user exists or not . If the user exists in web server then he/she should be directed to proper web page with welcome message.

Practical No 4:

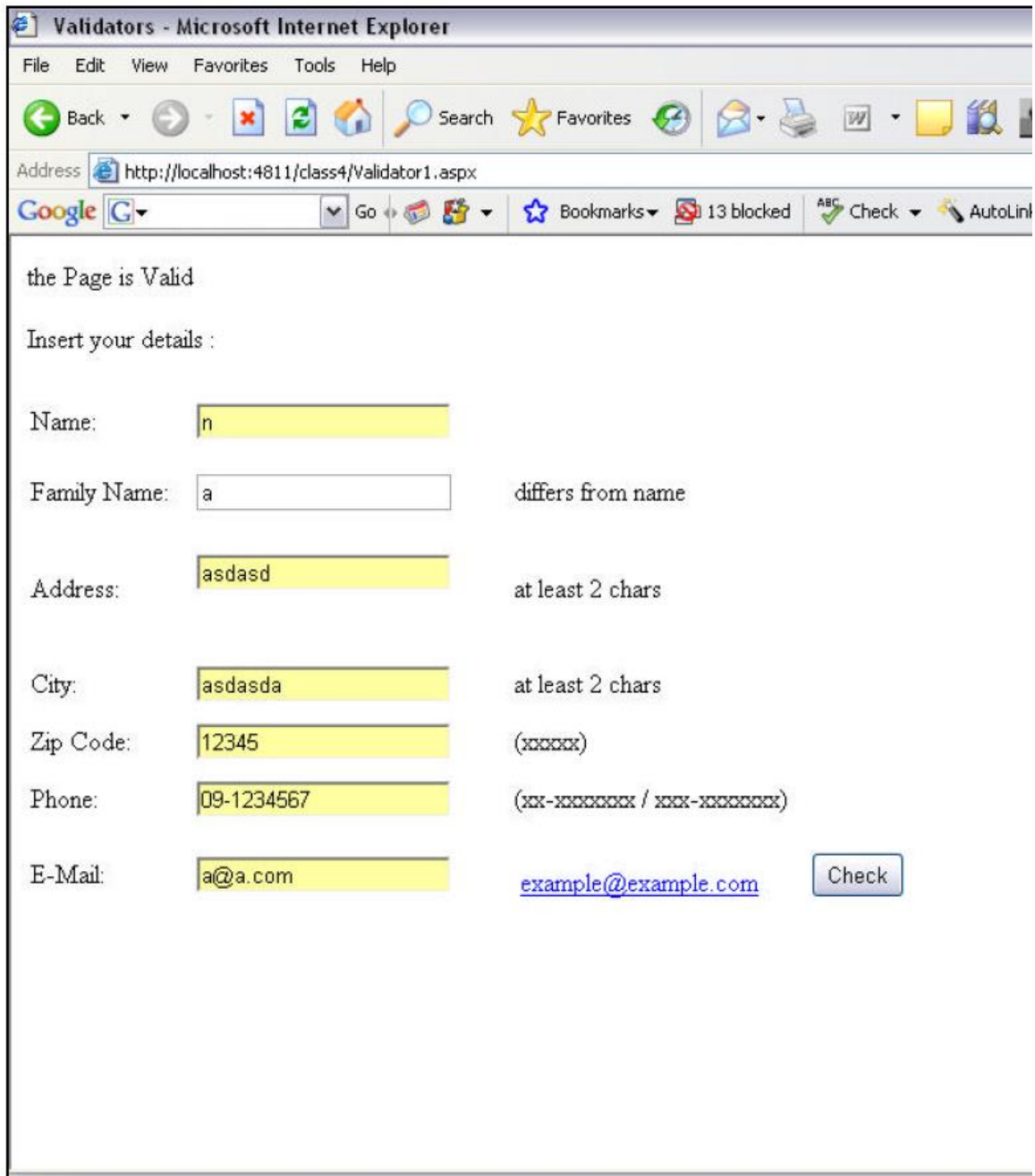
Write the following application.

The initial page is called Validator.aspx and it has 7 text boxes representing

(Name, Family Name, Address, City, Zip Code, Phone and e-mail address)

and a Check button.

User gets the following page after clicking on Check button:

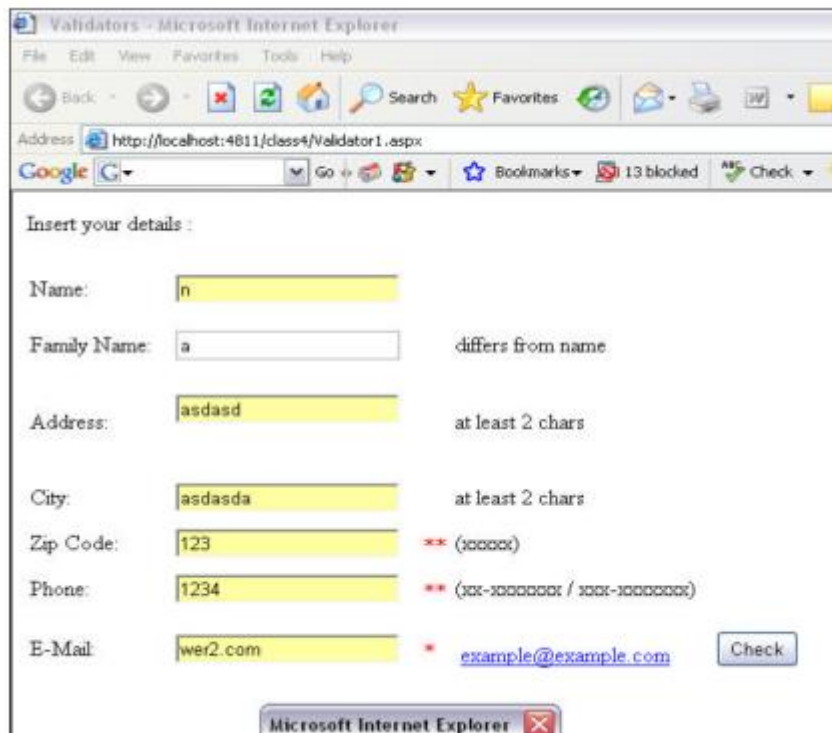


The required validation actions are:

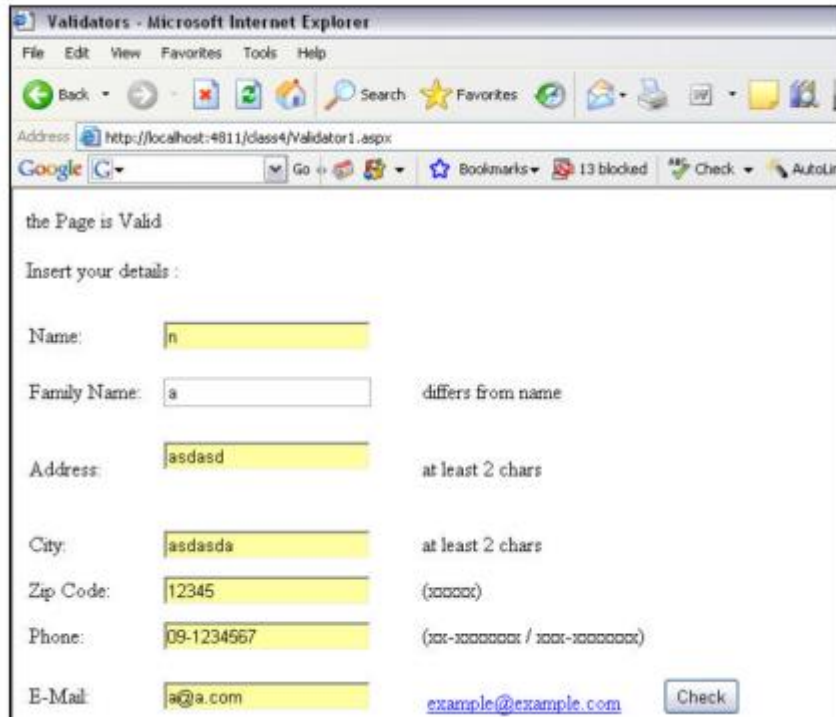
- name different from family name,
- address at least 2 letters,
- city at least 2 letters,
- zip-code 5 digits,
- phone according to the format XX-XXXXXXXX or XXX-XXXXXXXX,

- e-mail is a valid email.

After entering some of the details correctly user gets the following message:



And after a correct submission of all the details:



Practical No 5:

Create a screen which accepts student rollno . On click of submit it should display student result in the gridview with fields

| Name | Course | Marks | TotalMarks | Percentage |
|------|--------|-------|------------|------------|
|------|--------|-------|------------|------------|

The database table contains table called student(rollno, name, course , address, year)

Result(rollno,subject,marks, totalmarks)

Practical No 6:

Using crystal report design simple marksheet for SSC result. The data should appear dynamically from database.

Practical No 7:

Design UI for credit card data entry. User writes all the details such as card no(16 digits) expiry date CVV no etc. These details should be validated using validators and database for appropriate fields. After verification it asks for amount of transaction with password. If amount < balance display insufficient balance else display page which tells transactions successful.

Practical No 8:

Create a Web application that illustrates the use of themes and master pages with Site-Map. And create a web page with CSS.

Practical No 9:

Write a Program in ASP that has a form taking the users name as input. Store this name in a permanent cookie & whenever the page is opened again, then value of the name field should be attached with the cookie's content.

Practical No 10:

Demonstrate user's Authentication and Authorization in ASP.NET

Practical No 11:

Demonstrate the use ad-rotator to change advertisements on client side request.

Practical No 12:

Create a small online quiz application which displays the set of questions (differently to different users) based on the authentication and subject selection. At the end it displays the marks scored by candidate. Also it doesn't allow any page view without authentication (use session concept).

Practical No 13:

Create a registration form for students and demonstrate CRUD operation on it in ASP.NET.

Practical No 14:

Demonstrate use of System.Collections.Generic to store the details of students with Id, Name, Course, and D.O.B etc. Now store these details in database using Collection. Add search feature which searches record as per id.

Practical No 15:

Create a web application to insert 3 records inside the SQL database table having following fields (DeptId, DeptName, EmpName, Salary). Update the salary for any one employee and increment it to 15% of the present salary. Perform delete operation on 1 row of the database table.

Continuous Internal Assessment

Conducting practical test



**St. Xavier's College–Autonomous
Mumbai**

**Syllabus
For 6th Semester Courses in**

**B.Voc (Tourism)
B.Voc (Software Development)
(November 2016 Onwards)**

Theory Syllabus for Courses:

General Education Component

S.BVS.6.01/A.BVT.6.01: Popular Culture

S.BVS.6.02/A.BVT.6.02: Entrepreneurship II

S.BVS.6.03/A.BVT.6.03: Business Ethics

General Education Component

T. Y. B.VOC

Course: BVS/BVT 6.01

Title: Popular Culture

Learning Objectives:

- 1. To introduce students to the different understandings of Popular Culture.*
- 2. To combine a theoretical and artefactual study through case studies.*

Number of lectures: 60

Unit 1: Introduction **12 lectures**

- What is culture?
- Why study culture?
- How culture matters: Amartya Sen

Unit 2: Popular Culture **12 lectures**

- Meaning & Definitions
- High Culture and Low Culture
- Mass Culture and Folk Culture
- Culture Industry

Unit 3: Popular Music **12 lectures**

- America
- Britain
- India
- Middle East
- Africa

Unit 4: Popular Culture & Social Representations (Screenings & Discussions) **12 lectures**

- Race: Reel Bad Arabs
- Gender: Women in Indian Cinema
- Caste in Indian Popular Films: Fandry, Masaan, Sairat
- Bombay & The Working Class: Popular Literature, Theatre, Films, Songs

Unit 5: Important Trends and Debates **12 lectures**

- Class and Cultural Consumption
- Introduction to Fandom: Why Study Fans?
- Cultural Economy of Fandom
- Fashion
- Subculture: The Meaning of Style

Evaluation:

- CIA 1 (20M): Test;
- CIA 2 (20m): Assignment/ Presentation on Unit 3
- ESE (60 M): Written test

Suggested Readings:

1. Appadurai, A. (1997). *Modernity at Large: Cultural Dimensions of Globalisation*. Delhi: Oxford University Press.
2. Fiske, John. *The Cultural Economy of Fandom*
3. Gokulsing, K. M. and W. Dissanayake (eds.). (2009). *Popular Culture in a Globalised India*. Oxon & New York: Routledge.
4. Gray, J., Sandvoss, C., and Harrington, C.L. (Eds.). 2007. *Fandom: identities and communities in a mediated world*. New York: NYU Press.
5. Grindstaff, Laura. (2008). "Culture and Popular Culture: A Case for Sociology." In *Annals of the American Academy of Political and Social Science*, 619: 206-222.
6. Grossberg Lawrence. *Is There A Fan In The House? The Affective Sensibility of Fandom*
7. Guins, Raiford et al (eds.) (2005). *Popular Culture: a Reader*. London: Sage Pub.
8. Hebdige, Dick (2002). *Subculture: The Meaning of Style*. London & New York: Routledge
9. Hermes, Joke. (2005). *Re-reading Popular Culture*. Oxford: Blackwell Pub.
10. Kasbekar, Asha. (2006). *Pop Culture India! Media, Arts and Lifestyle*. Santa Barbara: ABC-Clio.
11. Kelly, William (2004). *Locating The Fans*. Albany: State University of New York Press
12. Lewis, Lisa (ed). (1992). *The Adorning Audience: Fan Culture and Popular Media*. London & New York: Routledge
13. Parker, Holt N. (2011). "Toward a Definition of Popular Culture." In *History and Theory* 50: 147-170.
14. Rege, Sharmila. (2002). "Conceptualising Popular Culture: The *Lavni* and *Pawda* in Maharashtra," *Economic and Political Weekly*. 37 (11): 1038 – 1047.
15. Storey, John. (2003). *Inventing popular culture : from folklore to globalization*. Oxford: Blackwell Pub.
16. Storey, John. (2009) *Cultural Theory and Popular Culture: An Introduction. Fifth Edition*. New Delhi: Pearsons
17. Storey, John (ed). (2009) *Cultural Theory and Popular Culture: A Reader. Second Edition*. Athens: University of Georgia Press
18. Strinati, Dominic. (1995). *An introduction to theories of popular culture*. London: Routledge.
19. Weaver, John A. (2005). *Popular culture primer*. New York: Peter Lang Publishing, Inc.
20. Williams, Raymond (1983). *Keywords: A Vocabulary of Culture & Society*. New York: Oxford University Press
21. Williams, Raymond (1989a). Culture Is Ordinary. *Resources of Hope: Culture, Democracy, Socialism*. London: Verpo, pp. 3-14

Title: ENTREPRENEURSHIP (Part II)

Learning Objective:

To equip students with knowledge of creating, establishing, managing, developing or pruning Enterprises through the practice of Management.

Total lectures: 60

Unit 1: Enterprise and Entrepreneurship **20 lectures**

- Qualities- Skills- Responsibilities- Role- Resources - Levels
- Functional areas of Management (Contexts of Finance- HR- Marketing- Manufacturing- etc.)
- Personality- Attitudes- Work Behaviour- Ability- Values- Job Performance
- Organizational Citizenship- Organizational Performance.
- History and Trends in Entrepreneurship
- Globalization
- Value-based Leadership

Unit 2: Principles of Management **10 lectures**

- Management Ideas
- Learning Organization
- Culture and Cross-Cultural understanding
- Ethics
- Developing Mission- Vision- Values
- P-O-L-C (Planning-Organizing-Leading-Control)
- Creativity- Passion- Stakeholders

Unit 3: Strategizing **10 lectures**

- Strategic Management Process- Corporate Strategy-
- SWOT- Internal Analysis Tools. External Analysis Tools- Strategic Focus.
- Porter's Generic Strategy.
- Value Discipline. Value-Chain- VRIO Blocks (Value-Rarity-Inimitability- Organizational).
- 5-Forces. STEPLE.
- Strategy Diamond.

Unit 4: Principles of Organisation **20 lectures**

- Goals- Objectives- MBO- Balanced Score-Card- Integrating Goal/Objectives with Performance Evaluation- Sustainability Index- Competencies- Motivation- CSR- SMART criteria
- Organization Structures & Change- Establishing Balance- Formalization- Hierarchical Levels- Departmentalization- Functional/Divisional- Impact of Technology- Resistance to Change- Planned change
- Organization Culture- Elements of Culture- Characterizing- Dimensions- Cultural Development & Maintenance
- Social Networks- Sociogram- Actors- Informational ties- Types of Social Networks- Innovation Network- Social Network Analysis- Personal/Operational/Strategic Networks- Mapping

Evaluation:

- CIA 1 (20 marks): Class Test
- CIA 2 (20 marks): Project/Assignments
- End Term Exam: 60 marks (Written exam)

TEXT BOOKS:

Management Fundamentals - Management & Entrepreneurship: Concepts, Application, Skill-Development. Robert N Lussier. South-Western Cengage Learning. 4th Edition.

REFERENCES:

1. The Oxford Handbook of Entrepreneurship – Mark Casson, Bernard Yeung, AnuradhaBasu, Nigel Wadeson. Oxford University Press.
2. Entrepreneurship in India. Dr Sanjay Tiwari, DrAnshujaTiwari. Sarup& Sons.
3. Entrepreneurship Development in India. Sami Uddin. Mittal Publications.
4. Dynamics of Entrepreneurial Development & Management - Vasant Desai. Himalaya Publishing House.
5. Patterns of Entrepreneurship Management. 3rd Edition. Jack M Kaplan, Anthony C Warren. John Willey & Sons Inc.

TYBVOC

COURSE: BVS/BVT 6.03

Title: BUSINESS ETHICS

Learning Objectives:

To equip students with knowledge of ethics in creating and managing enterprises or organizations.

Total lectures: 60

Unit 1: Introduction**05 lectures**

- Overview of Business Ethics.
- Differentiate between Rules/Policies/Law & Ethics.
- Ethics & Social Responsibility.
- Evolution of Ethics in Business.
- Purpose of Business Ethics.

Unit 2: Elements of Business Ethics**10 lectures**

- Ethical Issues in Business.
- Causes & Influences of Unethical Behaviour.
- Organizational misconduct.
- Classification of Ethical issues.
- Conflict of Interest- Honesty & Fairness.
- Organizational Relationships.
- Ethical Issues related to Ownership.
- Financial Responsibilities.
- Employees & Management Concern.
- Consumer & Marketing Issues.
- How to identify an Ethical Issue.
- Applying Moral Philosophies to Business Ethics.
- Teleology- Deontology- Relativist Perspective- Virtue Ethics- Types of Justice.

Unit 3: Issues in Ethical Decision Making**15 lectures**

- Social Responsibility- Business Ethics in Social Responsibility- The Legal dimension.
- Disputes in Business Ethics. Dispute Resolution.
- The Ethical dimension. Managing Ethics Programs.
- The Economic dimension.
- The Philanthropic dimension.
- Ethical Issue Intensity.
- Statutory Requirements- Cognitive Moral Development- Kohlberg's Model.
- Corporate Culture. Ethical Climate significance.
- Stress influence on Ethics.
- Opportunity influence on Ethical Behaviour.
- Business Ethics Evaluation & Intentions.

Unit 4: Influences and Conflicts**15 lectures**

- Organization Structure and Ethical Decision Making.
- Ethical Issues in Centralized Organizations & Decentralized Organizations.
- Role of Corporate Structure in Ethical Decision Making.
- Cultural differences influencing Ethics.
- Key Influences in Ethical Behaviour.

- Whistle Blowing- Organizational Pressure & Ethical Decision Making- Opportunity & Ethical Dilemmas- Conflict Resolution- Improving Ethical Behaviour.

Unit 5: Implementation of Business Ethics

10 lectures

- Development of an Effective Ethics Program- Ethical Compliance- Codes of Ethics-
- Manley's Implementation of Code of Ethics
- Communicating Ethical Standards- Ethics Training Programs- Monitoring, Auditing, Enforcing Ethical Standards- Continuous Improvement Program
- Organizational Performance- Relationship to Performance- Component Trust
- Contribution to Organizational Quality, Customer Satisfaction, Employee Commitment, Profits.
- Bad-Apple-Bad-Barrel Theory.
- Ethical Compliance Audit.

Unit 6: Business Ethics in Global Economy

05 lectures

- Ethical Perspectives in International Business.
- Cultural Relativism- Multinational & Global Ethical Issues- Gender & Human Discrimination- Human Rights. Price Discrimination- Bribery & Foreign Corrupt Practices- Harmful Products- Pollution
- Case Studies on Business Ethics (National & International).

Evaluation:

- CIA 1 (20 marks): Class Test
- CIA 2 (20 marks): /Assignments
- End Term Exam: 60 marks (Written exam)

References:

- Business Ethics Decision Making & Cases OC Ferrell, John Fraedsrich, Linda Ferrell 6th Edition Houghton Mifflin. India Edition.
- Business Ethics. Linda Ferrell. 4th edition. Custom Publication
- A Primer on Business Ethics. Tibor R Machan & James E Chesher. Rowman & Littlefield Publishers.
- Managing Business Ethics. Linda K Trevino & Katherine A Nelson. 5th Edition. John Wiley & Sons.
- Essentials of Business Ethics - Creating an Organization of High Integrity and Superior Performance. Dennis Collins. 3rd Edition. John Wiley & Sons.



St. Xavier's College–Autonomous
Mumbai
Syllabus
For 6th Semester Courses in B. Voc
(Software Development)
From November 2016

Skill Component courses

Theory Course Syllabus for:

S.BVS.6.04 ERP

S.BVS.6.05 Software Testing

Practical Course Syllabus for:

S.BVS.6.PR

S.BVS.6.PROJ Project – II

ENTERPRISE RESOURCE PLANNING WITH SAP

Learning Objective:

To introduce the concept of ERP systems along with SCM's structures and special focus on Material Management module along with SAP Business One software demos as a learning tool.

Number of lectures: 60

UNIT 1

ERP-An Introduction

(10 lectures)

What is ERP?

The Need for ERP, Benefits of ERP,

Business Models, Growth of ERP in India

ERP Implementation Lifecycle introduction

Vendors, Consultants & Users

In-house Implementation Pros and Cons,

Vendors, Consultants, End-Users

UNIT 2

Supply Chain Management – I

(10 lectures)

Introduction –

What is Supply Chain? Its objective,

Supply Chain Decision making,

Process View of a Supply Chain,

Examples of Supply Chains

The Network –

The Role of Distribution in the Supply Chain,

Factors that influence the Distribution Network Design,

Design Options for a Distribution Network,

E-Business and the Distribution Network,

Channels of Distribution, Distribution Networks in Practice.

UNIT 3

Supply Chain Management - II

(10 lectures)

The Customer service dimension –

Customer Service and Customer Retention,

Service driven logistics systems,

Setting customer service priorities and service standards

Benchmarking the Supply Chain –

Benchmarking the logistics process,

Mapping supply chain processes,

Supplier and distributor benchmarking,

Setting benchmarking priorities, performance indicators

UNIT 4

ERP Modules

(10 lectures)

Finance, Sales and Distribution,

Human Resource Management,

Material Management

UNIT 5 [Text Book 4. Chap 2]

Materials Management organizational structure in SAP

(10 lectures)

Client Structure, Company

Plants, Storage Locations

Warehouse and storage Types

Purchasing Organization

Business Examples – Organizational Structure

UNIT 6 [Text Book 4. Chap 20, 21, 22]

(10 lectures)

Inventory Management

Goods Movements, Goods Issue,

Goods Receipt, Physical Inventory

Returns, Reservations, Stock Transfers,

Business Examples.

Goods Issue

To Production Order, To Scrap,

For Sampling, Posting, Reversal,

Business Examples.

Goods Receipt

For a Purchase Order, For a Production Order,

Entry of inventory, Other Goods Receipts,

Business Examples

Continuous Internal Assessment

Assignments on unit 1-4 / Mid Term Test / Case Study of ERP implementation

Midterm test

List Of Text Books

1. “ERP”, Alexis Leon, Tata McGraw Hill.
2. “Supply Chain Management Strategy, Planning and Operation”, S Chopra, P. Meindl and D. Kalra, Pearson.
3. “Logistics and Supply Chain Management”, Martin Christopher, Pearson.
4. Materials Management with SAP ERP, 3rd Edition, Martin Murray, SAP PRESS.

List Of Recommended Reference Books

1. Alexis Leon, “ERP Demystified”, Tata McGraw Hill
2. “Enterprise Resource Planning”, E. Monk, B. Wagner, Cengage Learning

SOFTWARE TESTING

Learning Objective:

To develop the skill of software testing

Number of lectures: 60

UNIT 1

[08]

The basics of software testing

Terms and Motivations:

Error and Bug Terminology, Testing Terms, Software Quality

The Fundamental Test Process

Test Planning and Control,

Test Analysis and Design,

Test Implementation and Execution,

Evaluation of the Test Exit Criteria and Reporting,

Test Closure Activities

UNIT 2

[12]

Testing in software life cycle

The General V Model

Component Test:

Explanation of Terms, Test Objects, Test Environment, Test Objectives, Test Strategy,

Integration Test:

Integration Strategy, System Test,

Acceptance test:

Testing for user acceptance, Operational testing, Field testing, alpha testing and beta testing,

Static testing, Foundations, Review,

Walkthroughs, inspections

The General Process, Roles and Responsibility and Types of Review

UNIT 3

[08]

Functional testing

Boundary value analysis testing,

Robustness testing,

Worst case testing,

Equivalence class testing,

Decision table based testing,

Cause effect graphing technique and

State transition testing.

UNIT 4

[12]

Structural testing

Control flow testing,
Statement coverage,
Branch coverage,
Conditional coverage and path coverage,
Data flow testing,
Basis path testing, cyclomatic complexity,
Mutation testing, mutation and mutants,
Mutation operators and mutation score and slice based testing

UNIT 5

[08]

Test Management

Test Organization:

Test Teams, Tasks

Test Planning:

Quality Assurance Plan, Test Plan, Prioritizing Tests

Cost and Economy Analysis:

Cost of Testing, Test Effort Estimation

Definition of Test Strategy:

Preventive Vs Reactive Approach,
Analytical vs. Heuristic Approach

UNIT 6

[12]

Advanced concepts of software testing

Metrics and models in software testing,
Software metrics, categories of metrics,
What should be measured during testing?
Testing web applications,
Functional testing, user interface testing, navigation testing and form based testing,
automated test data generation using genetic algorithm, initial population, Crossover and
mutation, fitness function and algorithm for generating test data.

List Of Text Books

1. Software Testing by Yogesh Singh

List Of Recommended Reference Books

1. Software testing foundations – Andreas Spillner , Tilo Linz , Hans Schaefer (SPD publication)
2. Software Testing –Ron Patton second edition
3. Software engineering – A Practitioners Approach by Roger s Pressman
4. Software testing –Principles ,Techniques and Tools - Tata Mc-Graw Hill education Pvt . Ltd ,New Delhi

SEMESTER VI COURSE : S.BVS.6.PROJ

PROJECT- II

[Total Lectures 180]

Project will carry 6 credits with 200 Marks.

Students can do live project in industry or in-house project.

Students are expected to give time equivalent to 12 lecture periods/week, out of which 3 periods will be contact time for guidance from internal guide. There will be continuous internal assessment (CIA) for 40% of the credit (80Marks).

This will consist of:

CIA 1 → assessment of synopsis and viva on it

CIA 2 → analysis of requirement gathering, system design including DFD,

Use case, ER, Normalization, Context level diagrams etc.

Remaining 60% of the credit (120Marks) will be end semester examination consisting of documentation, presentation and viva. This will be jointly examined by the project guide and external examiner under the subheading of marks as follows:

| Documentation | Presentation (validation, database handling) | viva | Execution of various modules with report and testing | System design understanding |
|---------------|--|------|---|--------------------------------|
| 30 | 30 | 20 | 30 | 10 |

List of project categories

- 1) Hardware projects based on microcontroller / PIC
- 2) Networking projects
- 3) Mobile projects
- 4) Wireless technologies
- 5) Website projects
- 6) Desktop application
- 7) Real-time application in Linux/ Unix

8) Or any other suitable project which is approved by the project guide

Suggested format for project report S.BVS.6.PROJ

- 1) Cover page
- 2) Certificate from college(for in-house / external project)
- 3) Synopsis of project
- 4) Project report
 - a) Table of content
 - b) Definition of problem
 - c) Objective and scope of project
 - d) System analysis and design
 - i) User requirement
 - Functional requirement
 - Non-functional requirement
 - ii) Normalization
 - iii) DFD , context level diagrams
 - iv) Flowchart, ER diagram
 - v) Use case diagrams
 - e) Feasibility study
 - i) Technical feasibility
 - ii) Economical feasibility
 - iii) Operational feasibility
 - f) Software engineering paradigm applied
 - g) Software and hardware requirement specification
 - h) PERT chart, Gantt chart
 - i) Coding
 - j) Code efficiency
 - k) Validation checks
 - l) Testing
 - Test techniques(white box and black box testing)
 - Writing Test cases
 - Using test data
 - Generating defect reports
 - Use of testing tools(manual/automated)
 - m) System security measures
 - n) Cost estimation of project
 - o) Reports
 - p) Screen shots
 - q) Future enhancement
 - r) Bibliography
 - s) Glossary

- 5) Students have to submit black book to college(1 per group) in A4 size with one side written (approx 150-200 pages) along with CD having full documentation and codes
- 6) Students doing project in industry will have to get certificate from the company.

B.VOC (Software Development) SEMESTER VI

Practicals

Course: S.BVS.6.PR

Title: Enterprise Resource Planning with SAP

Learning Objective:

To introduce the concept of ERP systems to students with the help of case study simulation tutorials using SAP Business One software demos as a learning tool.

Practical List:

1. Case study on Purchase Order
2. Case study on MRP
3. Case study on Sales Order
4. Case study on Warehouse management
5. Case study on Bill of Materials
6. Case study related to Goods movement
7. Case study related to Invoice handling.

PRACTICALS IN SOFTWARE TESTING

S.BVS.6.PR

Software Testing

Learning Objective:

To develop the skill of Software Testing

Software Testing practicals

- I) Basis path testing
- II) Component testing
- III) Data flow analysis test
- IV) Equivalence class partitioning test
- V) Boundary value analysis test
- VI) Robustness based testing
- VII) State transition testing
- VIII) Decision table based test
- IX) Branch condition test
- X) Mutation test
- XI) Navigation test
- XII) Data based test
- XIII) Form based testing
- XIV) Slice based test
- XV) Testing using tools