B.C.A. – I (Semester-I)

Course Title:-Information Technology

Credits: Theory – (1)

Paper Type: VSC

Paper Code: BCA-517-VSC

Total Lectures: 15 Hrs.

Contact Hrs. (L): 1

Semester End Examination: 15 Marks

Internal Evaluation: 10 Marks

Objectives:

1. Familiarize the concepts of operating systems, programming languages, peripheral devices, networking, multimedia and internet.
2. It will help them to pursue specialized programs leading to technical and professional careers and certifications in the IT industry.
3. The focus of the subject is on introducing skills relating to IT basics, computer applications, etc.

Course Outcomes: At the end of this course, the student should be able to:

- To understand basic concepts and terminology of information technology.
- To a basic understanding of personal computers and their operations.
- To understand various input and output devices.
- To understand internet concepts.

Unit-I : Introduction to Computer, Structure and Working of Computer **5**

Introduction to Computer: Computer Characteristics, Concept of Hardware, Software, Evolution of computer and Generations, Types of Computer – Analog and Digital computers, Hybrid Computers, General Purpose and Special Purpose Computer, Limitations of Computer, Applications of Computerin Various Fields.

Structure and Working of Computer: Structure and Workingof Computer: Functional Block Diagram of Computer. CPU, ALU, Memory Unit, Bus Structure of Digital Computer Address, Data and Control Bus.

Unit-II : Input/output Devices **5**

Input Device: Keyboard, Voice Recognition Device, Digitizers, Point and drawdevices-mouse, joystick, track ball, light pen, Data scanning devices:- image scanner, OCR, OMR, MICR, Bar code reader, card reader

Output Devices: Monitor, Printer: - laser printer, dot-matrix printer, ink jet printer, Daisywheel Laser, Line (Chain and Drum), Plotters.

Computer Memory

Memory Concept, Memory Cell, Memory Organization, Semi-conductor Memory – RAM, ROM, PROM, EPROM, Secondary Storage Devices –Floppy Diskand Hard Disk., Compact Disk.

Books Recommended:

1. Computer Fundamental –P.K. Sinha
2. Computer Fundamental – V. Rajaraman
3. Computer Today – Donaid N. Sanders.

B.C.A. – I (Semester-I)

Course Title:-Information Technology Practical

Credits: Theory – (1)

Paper Type: VSC

Paper Code: BCA-518-VSC

Total Lectures: 30 Hrs.

Contact Hrs. (L): 2

Semester End Examination: 115 Marks

Internal Evaluation: 10 Marks

1. **MS-Office 2013**

   a. MS-Word
   b. MS-Excel
   c. MS-PowerPoint
   d. MS-Access

B.C.A. – I (Semester-I)

Course Title:-Web Designing

Credits: Theory – (1)

Paper Type: SEC **Paper Code:** BCA -519- SEC

Total Lectures: 15 Hrs. **Contact Hrs. (L):** 1

Semester End Examination: 15 Marks **Internal Evaluation: 10** Marks

Course Objectives:

1. Understand The Web Designing techniques.
2. Analyze and design real time web applications
3. Develop web based application using suitable client side web technologies

Course Outcomes:

The student will be able to:

- Analyze a web page and identify its elements and attributes.
- Create web pages using HTML and Cascading Style Sheets.
- Build static web pages using HTML,CSS (Client side programming).

Unit-I : 1: Overview of HTML **5**

Introductionto HTML, Overview of basic HTML, Structure of HTML, Creating and opening HTML file, Singular and paired tags, Text form Lists, Image, Image Map, Table, Frame Form, get and post method, input tag.

2: Introduction to HTML5: **5**

Need of HTML5, DOCTYPE Element,Events inHTML5, Input tag in HTML5- (Type, Auto focus, placeholder, required etc. attributes.), Graphics in HTML5, Media tags in HTML5.

3: Use OF CSS **5**

Introduction to CSS, Use of CSS, Types of CSS, Selectors, Properties, Values., CSS Properties- Background, Text, Fonts, Link, List, Table, Box Model, Border, Margin, Padding,Display, Positioning, Floating, Opacity, Media type, Back- grounds and Borders Image, Values and Replaced Content, Text Effects.

Books Recommended:

1) HTML5 Black Book- Kogent Learning Solutions IncDreamtech.
2) Beginning HTML and CSS-Rob Larsen.
3) HTML_&_CSS_The_Complete_Reference-Thomas A. Powell. (Fifth Edition).

B.C.A. – I (Semester-I)

Course Title:-Web Designing Practical

Credits: -1

Paper Type: SEC **Paper Code: BCA -520- SEC**

Total Lectures: 30 Hrs. **Contact Hrs. (L): 2**

Semester End Examination: 15 Marks **Internal Evaluation: 10 Marks**

1. Design HTML page to display student Information.
2. Design HTML page for all lists.
3. Design HTML page for display Table.
4. Design HTML page for Image map, frameset tags.
5. Create a web page using the Internal/ Linked/ External style sheet.
6. Create web page using Text formatting properties, CSS Borders, Margin Properties, Colorproperties.

B.C.A. – I (Semester-II)

Course Title:-Advanced Excel

Paper Type: VSC **Paper Code: BCA -527-VSC**

Credits: Theory – (1)

Total Lectures: 15 Hrs. **Contact Hrs. (L):** 2

Semester End Examination: 15 Marks **Internal Evaluation:** 10 Marks

Course Objectives:

1. To Learn Edit worksheets using advanced enhancements and worksheet features.
2. To Learn Use 3D referencing to merge data from multiple worksheets.
3. To Learn Import and export data from the Internet and merge the data in to Excelworksheets and publish Excel worksheets on the web.
4. To Learn Create templates after writing complex worksheets and workbooks
5. To Learn Work with named ranges and create lists.

Course Outcomes :- Students Will Be Able to:

- Modify worksheets using advanced enhancements and worksheet features.
- Calculate 3D referencing to merge data from multiple worksheets.
- Construct templates after writing complex worksheets and workbooks
- Examine Import and Export data from Excel to other Office applications
- Enhance lists using pivot tables and pivot table charts

Unit – I **Advance Excel –**

What If Analysis ,Goal Seek ,Scenario Analysis, Data Tables (PMT Function), Solver Tool Logical Functions, If Function, How to Fix Errors, if error, Nested If ,Complex if andor functions.

Unit – II **Data Validation –**

Number, Date & Time Validation ,Text and List Validation ,Customvalidations based on formula for a cell, Dynamic Dropdown List Creation using Data Validation – Dependency List Lookup Functions, Vlookup / HLookup, Index and Match ,Creating Smooth User Interface Using Lookup, Nested VLookup, Reverse Lookup using Choose Function, Worksheet linking using Indirect ,Vlookup with Helper Column Pivot Tables ,CreatingSimple Pivot Tables, Basic and Advanced Value Field Setting, Classic Pivot table, Choosing Field, Filtering PivotTables, Modifying PivotTable Data, Grouping based on numbers and Dates, Calculated Field & Calculated Items.

Arrays Functions - What are the Array Formulas, Use of the Array Formulas?, Basic Examples of Arrays (Using ctrl+shift+enter)., Array with if,len and mid functions formulas., Array with Lookup functions. Advanced Use of formulas with Array.

Charts and slicers-Various Charts i.e. Bar Charts / Pie Charts / Line Charts ,Using SLICERS, Filter data with Slicers ,Manage Primary and Secondary Axis Excel Dashboard, Planning a Dashboard -Adding Tables and Charts to Dashboard ,Adding Dynamic Contents toDashboard.

Reference BookS : -

1. Excel 2019 Bible - Michael Alexander - 1th edition - Wiley
2. Excel 2019 All-in-One for Dummies Greg Harvey 1st edition For Dummies
3. Excel for Beginners M.L. Humphrey 1st edition Independently Published

B.C.A. – I (Semester-II)

Course Title:-Advanced Excel Practical

Paper Type: VSC **Paper Code: BCA -528-VSC**

Credits: Theory – (1)

Total Lectures: 30 Hrs. **Contact Hrs. (L):** 2

Semester End Examination: 15 Marks **Internal Evaluation:** 10 Marks

1. Working with the IF Statement.
2. Working with Sum IF and Count IF statements.
3. Working with Date & Time Validation
4. Working with Date & Time Validation
5. Working with Arrays Functions
6. Inserting Charts.

B.C.A. – I (Semester-II)

Course Title:-Web Development

Paper Type: SEC **Paper Code:** BCA -529- SEC

Credits: Theory – (1)

Total Lectures: 15 Hrs. **Contact Hrs. (L):** 1

Semester End Examination: 15 Marks **Internal Evaluation:** 10 Marks

Course Objectives:

1. On completion of this course, a student will be familiar with client server architectureand able to develop a web application using Javascript and JQuery technologies.
2. Students will gain the skills and project-based experience needed for entry into web application and development careers.
3. Use Java script for dynamic effects and to validate form input entry
4. Analyze to Use appropriate client-side or Server-side applications

Course Outcomes:

The student will be able to:

- Develop programming skills by the use of java script
- Develop dynamic web pages using JavaScript (Client side programming).
- Test Use appropriate client-side applications.
- Develop interactive web applications using JQuery.
- Extend this knowledge to .Net Platforms, Java Technologies, Full Stack Development

Unit-I : JavaScript 5

Introduction to JavaScript, JavaScript Variables, Data types, Operators, types of operators, Buil in functions in JavaScript.

Control structure in JavaScript :

Control structure, DOM, Math, Array, History, Navigator, Location, Windows, String, Date, Document objects, user defined function, Validation in JavaScript, Event & event handling in JavaScript.

Unit-II : Introduction to JQuery 5

Introduction to jQuery, Need of JQuery, Adding jQuery to YourWeb Pages, jQuery Syntax, jQuery Selectors, jQuery Event Methods, jQuery Effects - Hide and Show, Fading, Sliding, Animation.

Unit-III : JQuery functions 5

Callback Functions, jQuery Chaining, JQuery Get and Set Content and Attributes, jQuery - Add El- ements, Add Several New Elements, jQuery -Remove Elements, jQuery - Get and Set CSS Classes, jQuery - css() Method, jQuery - The noConflict() Method

Books Recommended:

1) HTML5 Black Book- Kogent Learning Solutions IncDreamtech.
2) Beginning JavaScript and CSS Development with jQuery- Richard York.
3) Beginning HTML and CSS-Rob Larsen.
4) HTML_&_CSS_The_Complete_Reference-Thomas A. Powell. (Fifth Edition).
5) W3schools.com

B.C.A. – I (Semester-II)

Course Title:-Web Development Practical

Credit :- 1

Paper Type: SEC

Paper Code: BCA -530- SEC

Total Lectures: 30 Hrs.

Contact Hrs. (L): 2

Semester End Examination: 15 Marks

Internal Evaluation: 10 Marks

1. Create web page Using DIV and SPAN tag properties.
2. Write a JavaScript code working with functions: the alert Box, the confirm Box , the prompt Box etc.
3. Create standard calculator using JavaScript.
4. Create XML page to display student information