

SHRI GOVIND GURU UNIVERSITY, GODHARA

BCA Semester - 6

Subject Code	Subject	Exam	
		Ext.	Int.
BCA0E601	Mobile Application Development	70	30
BCA0F601	Enterprise Resource Development	-	100
BCA0C601	Web-Site Development - I (ASP.NET)	70	30
BCA0C602	Web-Site Development - II (PHP, AJAX)	70	30
BCA0C603	Advanced Java	70	30
BCA0P601	Web-Site Development - I (ASP.NET)	70	30
BCA0P602	Web-Site Development - II (PHP, AJAX)	70	30
BCA0P603	Software Development Project – II (SDP-II) (P)	70	30
TOTAL		490	310

Semester	Course	Instruction Hours/Week	Credit	Exam Hours	Internal	External		Total
						Theory	Practical	
6	BCA0E601	2	2	3	100	---	---	100
6	BCA0F601	2	2	3	100	---	---	100
6	BCA0C601	4	4	3	30	70	---	100
6	BCA0C602	4	4	3	30	70	---	100
6	BCA0C603	4	4	3	30	70	---	100
6	BCA0P601	4	4	3	30	---	70	100
6	BCA0P602	4	4	3	30	---	70	100
6	BCA0P603	4	4	3	30	---	70	100
TOTAL		32	28					

BCA0E601 - Mobile Application Development

Unit-1 An Overview of Android

What is Android? History of Android, Android Versions, Features of Android, Architecture of Android, Android devices in market, Introduction to Android Studio, Android SDK, Creating Android Virtual Devices (AVD)

Unit – 2 Activities, Fragments and Intents

Understanding Activities, Applying style and themes to an Activity, Hiding the Activity title, Displaying the dialog window, Displaying the progress dialog, linking activities using Intents, Returning results from Intents, Adding fragments dynamically, Life cycle of an fragment, Interaction between fragments, Displaying notifications.

Unit-3 Getting to know that the Android User Interface

Understanding the components of a screen : Views and ViewGroups, FrameLayout, LinearLayout, TableLayout, RelativeLayout, ScrollView, Managing Changing on screen Orientation, Detecting Orientation changes, Controlling the orientation of the Activity

Unit-4 Designing your User Interface with Views

Using basic Views : TextView:- Button, ImageButton, EditText, CheckBox, ToggleButton, RadioButton and RadioGroup Views.
ProgressBar View , TimePicker View , DatePicker View, ListView View.

Reference Books

- Beginning Android Programming with Android Studio By Jerome F. DiMarzio, Wrox
- Beginning Android by Grant Allen, Apress

BCA0F601 - Enterprise Resource Development

- 1 Introduction to Enterprise and ERP**
 - **An overview of Enterprise**
 - o Introduction
 - o Business Functions and Business Processes
 - o Integrated Management Information
 - o Role of the Enterprise in Implementing the ERP System
 - o Business Modeling
 - **Introduction to ERP**
 - o Introduction
 - o Common ERP Myths
 - o A Brief History of ERP
 - o The Advantages of ERP
 - o Roadmap for successful ERP implementation
 - o The Role of CIO
 - **Basic Concepts of ERP**
 - o Will ERP fit the ways A Company does Business?
 - o Why is ERP important to A Company?
 - o ERP market has Grown and will continue to Grow
 - o How does ERP create Value?
- 2 Risk, Benefits and Technologies related to ERP**
 - **Risks and Benefits of ERP**
 - o Risks of ERP
 - o Risk Factors of ERP Implementation
 - _ People Issues
 - _ Process Risks
 - _ Technological Risks
 - _ Implementation Issues
 - _ Operation and Maintenance issues
 - o Benefits of ERP
 - _ Information Integration
 - _ Reduction of Lead-time
 - _ On-time Shipment
 - _ Reduction in Cycle Time
 - _ Improved Resource Utilization
 - _ Better Customer Satisfaction
 - _ Improved Supplier Performance
 - _ Increased Flexibility
 - _ Reduced Quality Costs
 - _ Better Analysis and Planning Capabilities

- **ERP and Related Technologies**

- o Introduction
- o Business Process Reengineering (BPR)
- o Data Warehousing
- o Data Mining
- o On-line Analytical Processing (OLAP)
- o Product Life Cycle Management (PLM)
- o Supply Chain Management (SCM)
- o Customer Relationship Management (CRM)
- o Geographical Information Systems (GIS)
- o Intranet and Extranets
- o Advanced Technology and ERP Security
- o Middleware
- o Security and ERP

3 ERP – Functional Modules, ERP- Implementations

- **ERP-Functional Modules**

- o Introduction
- o Functional Module of ERP Software
 - _ Financial Module
 - _ Manufacturing Module
 - _ HR Module
 - _ Materials Management Module
 - _ Production Planning Module
 - _ Plant Maintenance Module
 - _ Quality Management Module
 - _ Purchasing Module
 - _ Marketing Module
 - _ Sales and Distribution Module

4 Success & Failure Factors of an ERP Implementation, Present & Future

- **Success & Failure Factors of an ERP Implementation**

- o Success Factors
- o Failure Factors

- **Present and Future**

- o ERP and eBusiness
 - _ eBusiness – Supply Chain Integration
 - _ The eBusiness Process Model
 - _ ERP / eBusiness Integration
- o ERP, Internet and WWW – ERP II
 - _ ERP, Internet and WWW
 - _ ERP to ERP II – Bringing ERP to the ERP Enterprise

Reference Books:

Enterprise Resource Planning (Second Edition) By Alexis Leon, McGraw Hill

ERP Demystified (Second Edition) By Alexis Leon, McGraw Hill

Enterprise Resource Planning By Mahadeo Jaiswal and Ganesh Vanapalli, MacMillan Publications

Enterprise Resource Planning (Edition-2008) By Summer, Pearson

BCA0C601 - Web-Site Development - I (ASP.NET)

UNIT

Topic

1. Introduction

- **The .Net Platform and the Web**
 - o The Pathway to Web Application
 - o The Web Client/Server Model
 - o Components of ASP.NET and .NET framework
 - o Overview of IIS
 - o Overview of ASP.NET
 - o Language Independence in the .NET framework
- **Working with ASP.NET**
 - o The Features of ASP.NET
 - o The Anatomy of ASP.NET Pages
 - o Introducing Web Forms
 - o Visual Studio IDE Basics
 - o Code-Behind feature
- **Application Configuration**
 - o Over view of Global.asax file and Web.config flie
- **Web controls for Displaying and Formatting Data Following properties should be consider in each control of ASP.NET**

Properties		
▪ AccessKey	BackColor	BorderWidth
▪ BorderStyle	CSSClass	Enabled
▪ Font.Bold	Font.Italic	Font.Name
▪ Font.Overline	Font.Size	Font.Strikeout
▪ Font.Underline	ForeColor	Height
▪ TabIndex	ToolTip	Width
▪ Id	Runat	Text
- **Label**
 - o Setting Properties
 - BorderStyle
 - BorderWidth
- **Panel**
 - o Setting Properties
 - BackImageUrl
 - HorizontalAlign
 - Wrap
 - o Add runtime control/s in panel
- **Table**
 - o Setting Properties
 - BackImageUrl
 - CellSpecing

- CellPadding
- GridLines
- HorizontalAlign

- **TableRow**

- o Setting Properties
 - HorizontalAlign
 - VerticalAlign

- **TableCell controls**

- o Setting Properties
 - ColumnSpan
 - RowSpan
 - HorizontalAlign
 - VerticalAlign
 - Wrap

2. **Web Controls**

Web Controls for Creating Buttons

- **Button , Image Button, Link Button**

- o Setting Properties
 - Command
 - CommandArgument
 - ImageUrl (Only for Image Button)
- o Event
 - OnClick

- **Web Control for Inputting Text**

- **Textbox**

- o Setting Properties
 - AutoPostBack
 - TextMode
 - Columns
 - MaxLength
 - Rows
 - Text
 - Wrap

- o Event
 - OnTextChanged

- **Web Controls for Selecting Choices**

- **CheckBox**

- o Setting Properties
 - AutoPostBack
 - Text
 - TextAlign
 - Checked

- o Event
 - OnCheckedChanged
- **RadioButton**
 - o Setting Properties
 - AutoPostBack
 - Checked
 - GroupName
 - Text
 - TextAlign
 - o Event
 - OnCheckedChanged
- **CheckBoxList , RadioButtonList**
 - o Setting Properties
 - AutoPostBack CellPadding DataSource
 - DataTextField DataValueField RepeatColumns
 - RepeatDirection RepeatLayout TextAlign
 - Items SelectedIndex SelectedItem
 - SelectedItems (only for CheckBoxList)
 - o Event
 - OnSelectedIndexChanged
- **Web Controls for Creating Lists**
- **ListBox , DropDownList**
 - o Setting Properties
 - DataSource DataTextField DataValueField
 - AutoPostBack Rows
 - SelectionMode(Only for ListBox)
 - o Event
 - OnSelectedIndexChanged
- **Rich Controls**
- **Calendar**
 - o Setting Properties
 - CellPadding CellSpacing DayHeaderStyle
 - DayNameFormat DayStyle FirstDayofWeek
 - NextMonthText NextPrevFormat NextPrevStyle
 - OtherMonthDayStyle PrevMonthText
 - SelectedDate SelectedDates SelectedDayStyle
 - SelectionMode SelectMonthText SelectorStyle
 - SelectWeelText ShowDayHeader ShowGridLine
 - ShowNextPrevMonth ShowTitle TitleFormat
 - TitleStyle TodayDayStyle TodayDate
 - VisibleDate WeekendDayStyle
 - o Events
 - DayRender
 - SelectionChanged

- VisibleMonthChanged
- **AdRotator**
 - o Setting Properties
 - AdvertisementFile
 - OnAdCreated
 - KeywordFilter
 - Target
- **File Upload**
- **Other Controls**
- **Hyperlink**
 - o Setting Properties
 - NavigateUrl
 - Text
 - ImageUrl
 - Target
- **Image**
 - o Setting Properties
 - ImageUrl
 - AlternateText
 - ImageAlign
- **Image Map**
 - o Setting Properties
 - HotSpotMode
 - HotSpots
 - ImageUrl
 - AlternateText
- **ASP.NET Page Directives**
 - o @Page o @Control o @Import
 - o @Register o @Assembly o @OutputCache

3. **Validation Controls ASP.NET Objects and Data Collection Class**

Validation Controls

Following properties should be considered in each Validation control of ASP.NET

Properties

- ControlToValidate
- Display
- Enabled
- ErrorMessage
- ForeColor
- IsValid
- **Required FieldValidator Control**
- **CompareValidator Control**

- o Setting Properties
 - ControlToCompare
 - Operator
 - Type
 - ValueToCompare
- **RangeValidator Control**
 - o Setting Properties
 - MaximumValue
 - MinimumValue
- **RegularExpressionValidator Control**
 - o Setting Properties
 - ValidationExpression
- **Introduction to Custom Validator control**
 - o Setting Properties
 - ClientValidationFunction
 - OnServerValidate

Authoring a User Control

- Login Control
- LoginView Control
- LoginStatus Control
- LoginName Control
- PasswordRecovery Control

Data List Controls

- **Repeater Control and DataList Control**
- **Introduction of GridView Or DataGrid Control**
(Simple Demo of view records using above control)
- **Introduction of FormView and Detail View Controls**
(Simple Demo of edit, delete and insert records using above control)

4. I/O and ADO.NET

- **Handling File I/O**

- o Reading Text Files
- o Writing Text Files
- o Binary Files I/O
- o Performing File Operations
- o File Information

- **ADO.NET**

- o ADO.NET Programming Objects and Architecture

- o Displaying Database Data
- o Working with The Data Set and Data Table Objects

Reference Book:

- ASP.NET and VB.NET Web Programming By Matt J. Crouch, Pearson
- ASP.NET Developer's Guide By Gerg Buczek, McGraw Hill

BCA0C602 - Web-Site Development-II (PHP, AJAX)

UNIT

1. Introduction to XAMPP
 - Java Introduction
 - Introduction to XAMPP
 - Installation of XAMPP
 - Characteristics of XAMPP
 - PHP MyAdmin
 - Starting with PHP Programming
 - Basic Syntax and Commands
 - PHP Operators
 - PHP programming
 - Looping Statements
 - Arrays
2. PHP Programming and MySQL Database Connection
 - PHP programming
 - Forms
 - Functions
 - Global Variable
 - PHP & MYSQL programming
 - Function Accessing MySQL from PHP
 - Creating a Table in PHP
 - Getting Information from the User
 - Inserting Records in the Table
 - Searching Records from the Table
 - Deleting Records from the Table.
3. AJAX
 - AJAX Basics
 - Limitations of Traditional Web Applications
 - List of Items for Implementing AJAX
 - PHP & AJAX
 - Understanding DOM
 - Steps to place Asynchronous Requests to the a Server
 - Accessing Form Elements
 - XMLHttpRequests
 - Separating JavaScript Code in Another File
4. AJAX and Validation

- AJAX and MYSQL
 - Sending data from Combobox to Server Asynchronously
 - Sending Multiple Items Selected from List box to the server Asynchronously
 - Sending items selected from Radio and Check Box to server Asynchronously
 - AJAX, PHP and MySQL all combined for accessing Database
- Validations
 - Checking Blank field
 - Checking field that has less data than required
 - Validating Emailed
 - Validating Form and string the record in the table
- Introduction to Web Services

Reference Book:

- Developing Web Applications in PHP and AJAX By B M Harwani, McGraw Hill
- Teach yourself PHP, MySQL and Apache By Julie C. Meloni, Pearson

BCA0C603 - ADVANCED JAVA

UNIT -1 File Input and Output

- File class
- File Organization and Streams
- Writing to and Reading from a file
- Reading and Writing formatted File Data
- Reading and Writing Random Access File
- Reading and Writing an Object to and from a File

UNIT -2 Japplet and Swing

- JLabel
- JTextField/ JPasswordField/JTextArea
- JButton
- Event Driven Programming
- Adding and Removing JApplet Components
- Additional Applet Methods
- JFrame
- Jpanel
- JCheckBox
- JComboBox
- JScrollPanels

UNIT -3 Layout Managers, Events & Networking

- **Layout Managers Events**
 - Layout Managers
 - Layout Options
 - Understanding Events and Events Handling, AWT Event class methods
- **Networking**
 - Overview of java.net package
 - Socket Programming (TCP/IP) (Using ServerSocket class Socket class)
 - Overview of Socket programming using Datagram (UDP Approach)

UNIT -4 JDBC

- Overview of JDBC and ODBC
- Types of Drivers
- Creating Database Connection
- Executing Statements (insert, update , delete, select to/from a table)

Reference Books:

- JAVA for Beginners 4e By Joyce Farrell Publication: Cengage Learning
- Advanced Programming in JAVA2 By K.Somasundaram, Jaico
- Programming in JAVA By S.S.Khandare S.Chand
- Object Oriented Programming in java By Dr. G.T.Thampi, Dreamtech
- JAVA Programming By Hari Mohan Pandey, Pearson
- Advanced JAVA By M.T.Savaliya, Dreamtech

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BCA Semester - 6

BCAC0P601 - Practical of -Web-Site Development-I (ASP.NET)

Sr. No.	Practical Title
1	Create an application which count the total number of users visited the page. (Using global.sax).
2	Create web page which will display School mark sheet using table control.
3	Create web page which will show the score card of Indian cricket match using Table Control.
4	Create web page which will ask payment detail of customer purchase, this detail either in Cash or Credit/Debit card or by Cheque. According to the payment mode panel control will display and accept payment detail and display all that detail in next page using label control.
5	<p>Write a program containing the following controls:</p> <ul style="list-style-type: none">• A ListBox• A Button• An Image• A Label <p>The listbox is used to list items available in a store. When the user clicks on an item in the listbox, its image is displayed in the image control. When the user clicks the button, the cost of the selected item is displayed in the control.</p>
6	<p>Extend the above program to add the following controls:</p> <ul style="list-style-type: none">• Two labels• A TextBox• A Button <p>One of the labels is displayed adjacent to the textbox, displaying the message "Enter the quantity:" When the user enters the quantity in the textbox and clicks the button, the total cost is evaluated and displayed in another label.</p>
7	Create a RadioButtonList that displays the names of some flowers in two columns. Bind a label to the RadioButtonList so that when the user selects an option from the list and clicks on a button, the label displays the flower selected by the user.
8	Create a user control that contains a list of colors. Add a button to the Web Form which when clicked changes the color of the Form to the color selected from the list.
9	Create a new Web form which allows the client to enter student information such as name, email address, sex and telephone number. The page also provides a submit button, which when clicked, will add this information to a Textbox which will also be displayed on the same page.
10	Create a product catalog facility for an online mobile store. The web page will display multiple mobile phone photos and their prices. When user clicks on any particular photo, he or she should be navigated to the page for that mobile. This page will contain all details and features of selected mobile phone.(use ad rotator control).
11	Develop an application which allow user to upload a .jpeg file.
12	Write a program that gets user input such as the user name, mode of payment, appropriate credit card. After the user enters the appropriate values the Validation button validates the values entered.
13	Create a Form that receives the user name, address, date, nationality, country preferred for working and skill sets from the user. The country preferred data should appear in a dropdown list whereas; others should be entered in a textbox. Validate all the controls. The Form is named "formexp.aspx". The date should appear between "1/1/1900" and "1/1/2090".

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14	Create a user control that receives the user name and password from the user and validates them. If the user name is "ASP" and the password is "NET" then the user is authorized, otherwise not.
15	Accept ItemCode, ItemName, ItemPrice and Qty from the user, store it as cookies and then display them on the next page.
16	Show an example of how your Web application can read from a database table using a DataReader class, and show the information in a DataGrid for display in your Web page.
17	Create a table StudentInfo, which contain rollno, name and year of a student. And also create a table StudentScore which contain marks of three subjects for each student. Display name of all the students in a DropDownList and according to user's choice, particular student record should display in a FormView/DetailView control.
18	Create a Global.asax file with Application variables cont, color1 and gotohp. Create a Session variable called cont1. Initialize cont as 0 and assign any color to color1. For the variable gotohp, give a hyperlink to any Website. Use the variables in a Web Form.
19	Create a Table, which displays two columns and three rows. The first row displays eno, the second displays ename and the third displays esal, all of these being retrieved from the emps table. Each of the above is displayed as a drop-down list, Containing all the values of the corresponding column in the table.
20	Create an application to display all records from an Employee table with proper formatting.
21	Write a simple CRUD (Create, Read, Update, Delete) Web application which reads, updates, inserts and deletes rows from the StudentInfo table which you have created for the previous exercise.
22	Crates web page which will create copy of file given by the user.
23	Create web page which will delete file given by the user from the web site folder.
24	Create web page which will display details of file, selected by the user.

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BCA0P602 - Practical Website Development – II (PHP, Ajax)

Sr. No.	Practical Title
1	Write a PHP Script that will display “hello world”.
2	Write a PHP script that will take three integer values and calculate the sum of them.
3	Write a PHP script calculate average of three values.
4	Write a PHP Script that will take two strings and concatenate them.
5	Write a PHP Script that will assign two integer values and swap there values.
6	Write a PHP Script that will assign two numbers and check their equality.
7	Write a PHP Script that will check whether the number is positive or negative.
8	Write a PHP Script that will check whether the number is Even or Odd.
9	Write a PHP function that will take three integer values and find out max number.
10	Write a PHP function that will take an integer value and return sum of its digits.
11	Write a function to calculate the factorial of a number (non-negative integer). The function will accept the number as an argument.
12	Write a PHP function that checks whether a passed string is a palindrome or not?
13	Write a PHP program to find the sum of element in an array.
14	Write a PHP program to sort elements in array in ascending or descending order.
15	Write a PHP program to remove the duplicate value from an array.
16	Write a PHP program to insert a record to the table in database.
17	Write a PHP program to fetch record from the table in database.
18	Write a PHP program to delete a record to the table in database.
19	Write a PHP program to search a record from the table in database.
20	Write a program to validate email id using AJAX technology.
21	Write a program to validate password.
22	Write a program to validate no fields left blank.

BCA0P603 - Software Development Project – II (SDP-II)

Project must be developed in the computer laboratory of concern institute under the supervision of faculties of concern institute on any subject of semester-VI. (At the time of Project-Viva examination student must show all the Workouts, SDLC, Documentation, Program codes and project in running mode)

Note :

- Project must be submitted before two week of commencement of theory exam.
- Project viva examination may be arranged before or after theory exam.
- During the project viva examination project must be run.