



Jai Hind College Autonomous
S.Y.BVOC- SEM-III
Draft Syllabus of
Dept of
Software Development 2019-20

S.Y.B. Voc Software Development Syllabus

Academic year 2019-2020

Semester <III>			
Course Code	Course Title	Credits	Lectures /Week
General Component			
SBSD301	Business Communication	4	3
SBSD302	Digital Marketing & Public Relations & Advertising	4	3
SBSD303	Green Computing	4	3
Skill Component			
SBSD304	Advanced Java	3	3
SBSD305	Advance Web Designing & Programming	3	3
SBSD306	Data Communication and Networking	3	3
SBSD307	Software Testing	3	3
SBSD304PR	Advanced Java Practical	1.5	3
SBSD305PR	Advance Web Designing & Programming Practical	1.5	3
SBSD306PR	Data Communication and Networking Practical	1.5	3
SBSD307PR	Software Testing Practical	1.5	3

Course Code: SBS301	Course Title: Business Communication (Credits :03 Lectures/Week:03)	
Learning Objectives	<ul style="list-style-type: none"> ➤ To teach strategic communication model, critical thinking to identify objectives and analyze audience ➤ How to choose the most effective structure and style for delivering written and spoken messages ➤ To give practice to principles of effective business writing and document design in all written documents ➤ How to design and deliver a persuasive presentation that convinces the audience of the topic's relevance and overcomes resistance, using appropriate visual support and adhering to a specified time limit ➤ As a team, how to design and deliver a presentation that both informs and persuades, using an appropriate visual support strategy and adhering to a specified time limit 	
Course description	The course aims to introduce students to various models of communication and prepares them in the skills pertaining to written correspondence for meetings, for business letters, job applications, resumewriting and presentation skills, interviews and group discussions.	
	THEORY	(45 lectures)
Sub Unit	Unit – I: Importance of Communication	10 lectures
1.	<ul style="list-style-type: none"> i. Meaning and importance of Business communication ii. Models of communication iii. Do's and don'ts of Effective communication iv. Presentation Skills 	
Sub Unit	Unit – II: Routine Correspondence	15 lectures
2.	<ul style="list-style-type: none"> i. Circulars, drafting notices, handling complaints & evaluating interview performance ii. Articles, formal invitations & pro-forma for performance appraisal iii. Letters of appointment, captions for advertising, Minutes of Meeting, action taken report on previous resolution 	
Sub Unit	Unit – III	10 lectures

3.	i. Principles of Business Letter Writing, Types of Business Letters ii. Business Letter Format-Routine Business Letters & Sales Letters, Business Memos & E- Mail iii. Employment Communication – Resumes and Cover Letters, Job Application Letters.	
Sub Unit	Unit – IV: Writing an Effective Report	10 lectures
	i. Stages of Writing, Composing Business Messages, Style and Tone ii. Five W's and one H of Report Writing, iii. Planning and Types of Reports iv. Creativity in written communication, use of picture & diagram in written communication	
ICA (Internal Continuous Assessment)	CA 1 = 20 marks -Case study-based assignment CA 2 = 20 marks -Presentation Total CAs = 40 marks	
References:	1. Ecouse Barry, (1999), <i>Competitive Communication: A Rhetoric for Modern Business</i> , OUP. 2. French, Astrid (1993) <i>Interpersonal Skills</i> , New Delhi: Sterling Publishers. 3. Garlside, L.E. (1980) <i>Modern Business Correspondence</i> , Plymouth: McDonald and Evans Ltd. 4. Ghanekar, A (1996) <i>Communication Skills for Effective Management</i> , Pune: Everest Publishing House. 5. Graves, Harold F. (1965) <i>Report Writing</i> , Prentice Hall, New Jersey :Krevolin.	

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Presentation-20 Marks

II. Semester End Examination (SEE)- 60 Marks

Course Code: SBSD302	Course Title: Digital Marketing, PR & Advertising (Credits :03 Lectures/Week:03)	
Learning Objectives	<ul style="list-style-type: none"> ➤ It will help them to understand the strategies to advertise their products (tour package or a software program) ➤ PR will help them in understanding how to maintain the corporate relationships. 	
Course description	This course equips students with much needed skills in area of advertising and tools of marketing, Public relations and digital marketing skills.	
	THEORY	(45 lectures)
Sub Unit	Unit – I: Introduction to Advertising	10 lectures
1.	a) <ul style="list-style-type: none"> i. Meaning & Evolution ii. Features and functions of advertising iii. Advertising as a Communication process b) Overview and scope of advertising industry in India	
2.	a) <ul style="list-style-type: none"> (i) Challenges faced by advertisers in India in the era of globalization (ii) Concept of Marketing and Integrated Marketing Communication (IMC) (iii) Advertising and other tools of marketing/IMC b) Role of advertising in Product Life Cycle (PLC) & low and high involvement products	
3.	a) <ul style="list-style-type: none"> i. Role of advertising in brand building ii. Consumer behavior b) Target audience and market segmentation & Ethical and social issues in advertising c) Advertising Standard Council of India (ASCI)	

	Unit – II: Public Relations	10 lectures
1.	a) Internal PR and External PR	
2.	a) The various stakeholders to which PR person is responsible- <ul style="list-style-type: none"> i. Consumer &shareholder ii. Government &employee iii. General public 	
3.	a) Strategies of PR b) Press Release&Code of ethics in PR c)Press Conference &Media planning	
	Unit – III:Digital Marketing	15 lectures
1.	a.Social media marketing-Types of social media and how it influences customers-Facebook-creating Facebookpage, b.Creating FAN page for Business Marketing c. You Tube Ads, Twitter, Linkedin, slide share,	
2.	(a)Search engine optimization-rank webpage on top of search, ORM, Google webmaster tool, Google Analytics-Analyze, measure and improve performance of online campaigns (b)Freelancer affiliate Marketing, Google Adwords, Create advertising campaigns on google ©Email marketing, Mobile marketing, Online reputation management, Google webmaster Tools	
3.	(a)Infographics Content marketing, DigitalMarketing strategy, E commerce Business Marketing-Top E – Commerce Websites around the world E – Commerce Scenario. (b) Hashtag Viral Market Webinar Marketing ©Whatsapp marketing, Creating a blog, Instagram Marketing	

	Unit – IV: Digital Marketing	10 lectures
1.	(a) Marketing analysis (annual reports, news articles, government resources) (b) Target Audience analysis (Simmons Market Research Bureau, Mediamark Research)	
ICA (Internal Continuous Assessment)	CA 1 = 20 marks -Case study-based assignment CA 2 = 20 marks -Presentation Total CA =40 marks	
References:	1. Koontz, O'Donnell & Wehrich, (1980) <i>Management</i> , Tokyo: McGraw – Hill Inc 2. Robbins (16 th ed) (1979). <i>Organizational Behaviour</i> , New Delhi: Prentice-Hall of India. 3. Singh, D. (2001). <i>Emotional Intelligence at work</i> , Response Books, New Delhi: Sage Publication 4. Sissors, Jack Z., Surmanek, Jim. (1976). <i>Advertising Media Planning</i> -Crain books. 5. James R Adams. (1977). <i>Media Planning</i> -Business books. 6. D, Nidhi. (ed 2011). <i>E-Commerce Concepts and Applications</i> , Mumbai: International Book House Pvt Ltd. 7. Whiteley, David. (2013). <i>E-Commerce Technologies and Applications</i> , London: McGraw- Hill.	

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Presentation- 20 Marks

II. Semester End Examination (SEE)- 60 Marks

Course Code: SBSD303	Green Computing(Credits :03 Lectures/Week:03)
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Learning Objectives:	<ul style="list-style-type: none"> ➤ The objective of this course is to provide graduate students with an understanding of the role of Green Computing and there impact on the global carbon footprint. ➤ This includes how to estimate the carbon footprint of the Green Computing operations of an organization and access ways to reduce the carbon footprint by changes to policies for procurement of Green Computing, changes to Green Computing operations and revising business processes.
Course Description	<ul style="list-style-type: none"> ➤ This <i>course</i> introduces students to the exciting area of “<i>Green Computing</i>” aiming to help students acquire the knowledge and skills needed to do research in this space. ➤ The second track is “<i>Applying Computing towards Sustainability</i>”, covering topics that leverage <i>computing</i> to reduce the energy footprint of our society.
THEORY	
Unit I	<p style="text-align: right;">(60 Lectures)</p> <p>Safety & Health Management System Key elements of a safety and Health Management System- Policy & commitment, Initial Safety and health Management System, Review safety and Health policy- Developing a workplace Safety and Health Policy. Safety Consultation.</p> <p>Fire Safety Fire, change of state and latent heat, thermal expansion of solids, liquids and gases. Transmission of heat, combustion, Fire tetrahedron, and combustible solid, liquids and gases. Classification of Fire and different fire extinguishing methods, portable fire extinguishers.</p> <p style="text-align: right;">15 L</p>
Unit II	<p>Minimizing Power Usage Power Problems</p> <p>Monitoring Power Usage Servers, Low-Cost Options</p> <p>Reducing Power Use Data De-Duplication, Virtualization ,Management, Bigger Drives Involving Your Utility Company</p> <p>Low-Power Computers PCs, Linux</p> <p>Components Servers, Computer Settings, Storage, Monitors, Power Supplies, Wireless Devices, Software</p> <p style="text-align: right;">15 L</p>
Unit III	<p>Going Paperless Paper Problems The Environment & Your Costs</p> <p>Paper and Your Office Practicality, Storage, Destruction</p> <p>Going Paperless Organizational Realities, Changing Over, Paperless Billing, Handheld Computers vs. the Clipboard , Unified Communications</p> <p>Intranets What to Include Building an Intranet Microsoft Office SharePoint Server 2007 Electronic Data Interchange (EDI) Nuts and Bolts, Value Added Networks, Advantages, Obstacles</p> <p style="text-align: right;">15 L</p>

	Datacenter Design and Redesign Energy Consumption Growth, Other Costs Design Efficiency, Floor Layout, Server Configuration, Floor Vent Tiles, Rightsizing	
Unit IV	Recycling & Virtualization Problems China, Africa, Materials Means of Disposal Recycling, Refurbishing, Make the Decision Life Cycle From Cradle to Grave, Life, Cost, Green Design Recycling Companies Finding the Best One, Checklist, Certifications Hard Drive Recycling Consequences, How to Clean a Hard Drive, Which Method? CDs and DVDs Bad News, Good News, Change Your Mindset Virtualization Server Virtualization Server Virtualization Introduction, Advantages, Best Practices, Use Caution Server Virtualization Solutions VMware Infrastructure 3, Microsoft Virtual Server 2005	15 L
ICA (Internal Continuous Assessment)	i. Internal Test: 20 Marks ii. Project: 20 Marks	
Textbooks: 1. Mark G. O'Neill, GREEN IT FOR SUSTAINABLE BUSINESS PRACTICE, An ISEB Foundation Guide. 2. Jason Harris, Green Computing and Green IT Best Practices.		

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Project- 20Marks

II. Semester End Examination (SEE)- 60 Marks

Course Code: SBSD304	Course Title: Advanced Java (Credits : 03 Lectures/Week: 03)	
Learning Objectives	<ul style="list-style-type: none"> i. Knowledge of the structure and model of the java programming language, (knowledge) ii. Use the java programming language for various programming technologies (understanding) iii. Develop software in the java programming language, (application) iv. Evaluate user requirements for software functionality required to decide whether the java programming language can meet user requirements (analysis) 	
Course description	<ul style="list-style-type: none"> a) Programming in the Java programming language b) Knowledge of object-oriented paradigm in the Java programming language, c) The use of Java in a variety of technologies and on different platforms. 	
	THEORY	(60 Lectures)
Unit I	Event Handling: The delegation event model, Events, Event classes, Event Listener Interfaces, Using the Delegation event model, Adapter classes, Inner classes AWT : Windows fundamentals, Working with frame windows, Control fundamentals, - Labels, Buttons, CheckBox, Radio button TextFiled, Understanding Layout Manager	15 lectures
UNIT II	Swing: JColorChooser, JComboBox, JFileChooser, JInternalFrame, JLabel, JMenuBar, JOptionPane, JLayeredPane, JDesktopPane, JPanel, JPopupMenu, JProgressBar, JRootPane, JScrollBar, JScrollPane, JSeparator, JSlider, JSplitPane, JTabbedPane, JTable, JTableHeader, JToolBar, JToolTip, JTree, JViewport, JEditorPane, JTextPane, JTextArea, JTextField, JPasswordField, JButton, JMenuItem, JCheckBox-MenuItem, JRadioButton-MenuItem, JCheckBox, JRadioButton, JMenu	15 lectures
UNIT III	Introduction to servlets: Need for dynamic content, java servlet technology, why servlets? Servlet API and Lifecycle: servlet API, servletConfig interface, ServletRequest and ServletResponse Interfaces, GenericServlet Class. ServletInputStream And ServletOutputStream Classes, RequestDispatcherInterface, HttpServletClass, HttpServletRequest and HttpServletResponse Interfaces, HttpSessionInterface, Servlet Lifecycle. Working with servlets: organization of a web application, creating a web application (using netbeans) , creating a servlet, compiling and building the web	15 lectures

	application	
UNIT IV	<p>JDBC: Design of JDBC, JDBC configuration, Executing SQL statement, Query Execution, Scrollable and updatable result sets,row sets, metadata, Transaction.</p> <p>JSP: Introduction, disadvantages, JSP v/s Servlets, Lifecycle of JSP, Comments,JSPdocuments,JSP elements, Action elements, implicit objects, scope,characterquoting conventions, unified expression language.</p> <p>Java server Faces : Need of MVC , what is JSF?, components of JSF, JSF as an application, JSF lifecycle,JSF configuration, JSF web applications (login form, JSF pages)</p> <p>EJB: Enterprise bean architecture,Benefits of enterprise bean, types of beans,Accessing beans ,packaging beans, creating web applications, creating enterprise bean, creating web client, creating JSP file, building and running web application</p>	15 lectures
ICA (Internal Continuous Assessment)	<ul style="list-style-type: none"> ➤ Internal Test- 20 Marks ➤ Mini-Project- 20 Marks 	
References:	<ul style="list-style-type: none"> i. Java EE Project using EJB 3, JPA and struts 2 for beginners, Shah, SPD ii. Java Programming A practical Approach, C Xavier, McGraw Hill iii. Java Server Faces A practical Approach for beginners, B M Harwani, Eastern Economy Edition (PHI). iv. Edition (PHI). v. Advanced Java Technology, Savaliya, Dreamtech. 	

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Mini-project- 20Marks

II. Semester End Examination (SEE)- 60 Marks

Course Code: SBSD305	Advance Web Designing & Programming (Credits : 03 Lectures/Week: 03)	
Learning Objectives	<ul style="list-style-type: none"> ➤ Understand how server-side programming works on the web. ➤ PHP Basic syntax for variable types and calculations. ➤ Understanding POST and GET in form submission ➤ The purpose of jQuery is to make it much easier to use JavaScript on your website. ➤ Bootstrap is easy to use and allows a designer to specify exactly how the site will look and behave on a number of different displays, including mobile, desktop, and tablet. 	
Course Description	<ul style="list-style-type: none"> ➤ This course introduces the PHP framework and syntax and covers in depth the most important techniques used to build dynamic Web sites. ➤ Students learn how to connect to any modern database, and perform hands on practice with a MySQL database to create database-driven HTML forms and reports 	
	THEORY	(60 Lectures)
Unit I	<p>Php5 Introduction Syntax, Variables, Print/Echo, Datatypes, Strings, Constants, Operators, If.....Else....Elseif, Switch, While Loops, For Loops, Function, Arrays, Sorting Arrays, PHP forms</p> <p>PHP 5 Advanced Multidimensional Arrays, File Handling, File Open/Read, File Create/Write, File Upload, Cookies, Sessions, Filters, Filters Advanced, Error handling, Exception</p> <p>MySQL Database MySQL connect, Create DB, Create Table, Insert Data, Insert Multiple Statements, Select Data, Delete Data, Update Data, Limit Data</p>	15 L
Unit II	<p>Bootstrap Grid Basic, Typography, Colors, Tables, Images, Jumbotron, Alerts, Buttons, Button Groups, Badges, Progress Bars, Spinners, Pagination, List groups, Cards, Dropdowns, Collapse, Navs, Navbar, Forms, Input, Input Groups, Custom Forms, Carousel, Modal, Tooltip, Popover, Toast, Scrollspy, Utilities, Flex, Media Objects, Filters.</p>	15 L
Unit III	<p>Introduction (Syntax, Selectors, Events)</p> <p>JQuery Effects (Hide/Show, Fade, Slide, Animate, Stop(), Callback, Chaining)</p> <p>JQuery HTML (Get, Set, Add, Remove, CSS Classes, css(), Dimensions)</p> <p>Traversing (Ancestors, Descendants, Siblings, Filtering)</p>	15 L
Unit IV	<p>Introduction on Angular JS Expressions, Modules, Directives, Model, Data Binding, Controllers, Scope, JS Filters, Services, Http, Tables, Select, SQL, DOM, Events, Forms, Validation, API</p>	15 L

ICA (Internal Continuous Assessment)	i. Internal Test: 20 Marks ii. Mini-Project: 20 Marks	
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Textbooks:

1. PHP: The Complete Reference - Steven Holzner.
2. JQuery Pocket Reference - David Flanagan.
3. Complete Bootstrap Responsive Web development with Bootstrap 4 - Matt Lambert, Bass Jobsen, David Cochran, Ian Whitley
4. AngularJS:- by Brad Green, ShyamSeshadri

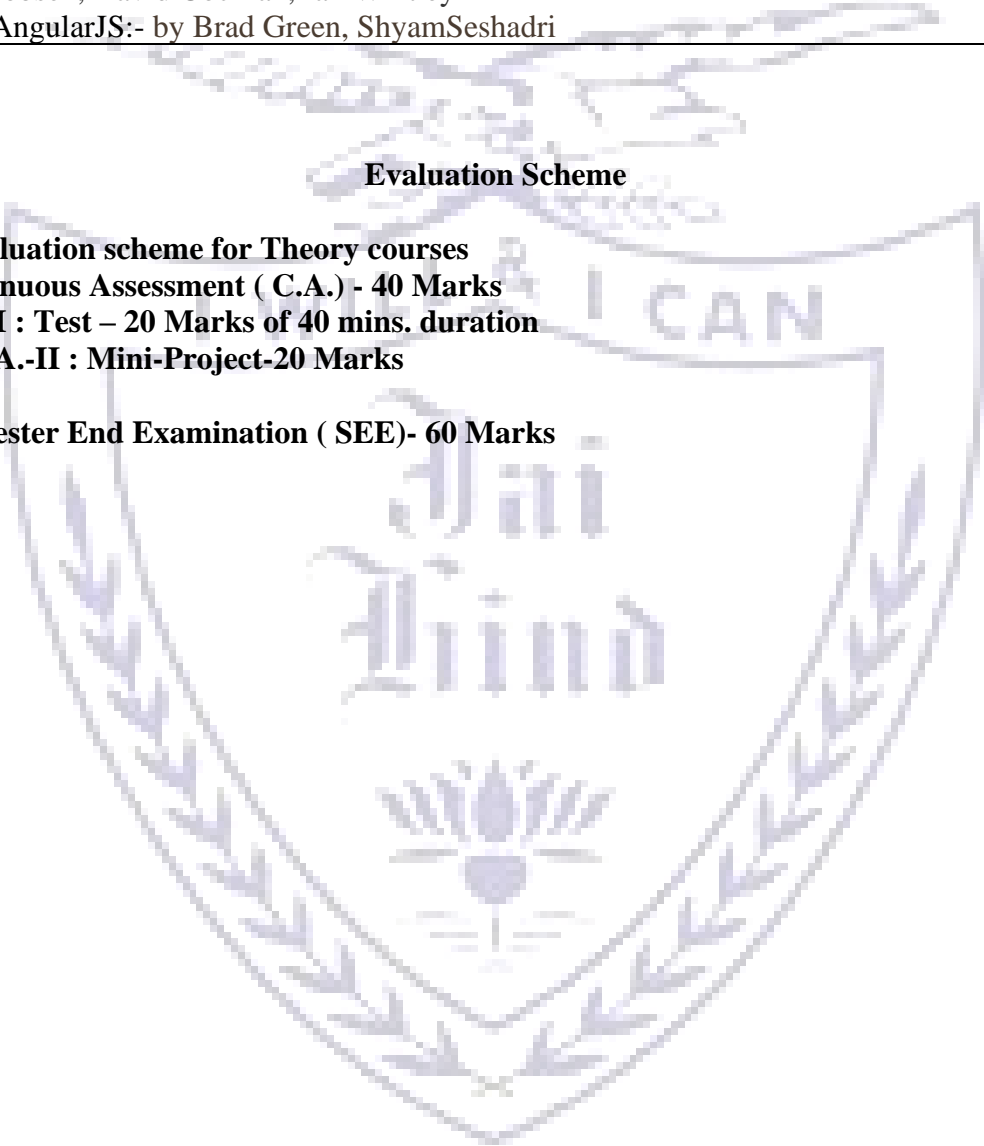
Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

- i) C.A.-I : Test – 20 Marks of 40 mins. duration
- ii) C.A.-II : Mini-Project-20 Marks

II. Semester End Examination (SEE)- 60 Marks



Course Code: SBSD306	Course Title: Data Communication and Networking (Credits :04 Lectures/Week:03)	
Learning Objectives	It will develop problem-solving and critical thinking skills and use these skills to solve complex computing problems	
Course Description	<ul style="list-style-type: none"> ➤ Understand strategies for effective design and their application in designing computing systems ➤ Learn to acquire problem requirements and specifications from the client and express them ➤ Develop and test software solutions using different design methodologies, application program interfaces, and programming languages ➤ Demonstrate appropriate uses of modern tools of the computing profession 	
	THEORY	(60 Lectures)
Unit I	<p>Introduction: Data communications, networks, network types, Internet history, standards and administration.</p> <p>Network Models: Protocol layering, TCP/IP protocol suite, The OSI model.</p> <p>Introduction to Physical layer: Data and signals, periodic analog signals, digital signals, transmission impairment, data rate limits, performance.</p> <p>Digital and Analog transmission: Digital-to-digital conversion, analog-to-digital conversion, transmission modes, digital-to-analog conversion, analog-to-analog conversion.</p> <p>Bandwidth Utilization: Multiplexing and Spectrum Spreading: Multiplexing, Spread Spectrum</p>	15L
Unit II	<p>Switching: Introduction, circuit switched networks, packet switching, structure of a switch.</p> <p>Introduction to the Data Link Layer: Link layer addressing, Data Link Layer Design Issues, Error detection and correction, block coding, cyclic codes, checksum, forward error correction, error correcting codes, error detecting codes.</p> <p>Data Link Control: DLC services, data link layer protocols,</p> <p>Media Access Control: Random access, controlled access, channelization</p> <p>Wired LANs – Ethernet Protocol, standard ethernet, fast ethernet, gigabit ethernet, 10 gigabit ethernet</p> <p>Wireless LANs: Introduction, IEEE 802.11 project, Bluetooth, WiMAX, Cellular telephony, Satellite networks.</p> <p>Virtual LANs.</p>	15L
Unit III	<p>Introduction to the Network Layer: Network layer services, packet switching, network layer performance, IPv4 addressing, forwarding of IP packets, Internet Protocol, ICMPv4, Mobile IP</p> <p>Unicast Routing: Introduction, routing algorithms, unicast routing protocols.</p> <p>Next generation IP: IPv6 addressing, IPv6 protocol, ICMPv6</p>	15L

	protocol, transition from IPv4 to IPv6.	
Unit IV	Introduction to the Transport Layer: Introduction, Transport layer protocols (Simple protocol, Stop-and-wait protocol, Go-Back-n protocol, Selective repeat protocol, Transport layer services, User datagram protocol, Transmission control protocol, Standard Client0Server Protocols: World wide-web and HTTP, FTP, Electronic mail, Telnet, Secured Shell, Domain name system.	15L
ICA (Internal Continuous Assessment)	ii. Internal Test: 20 Marks iii. Mini-Project: 20 Marks	
Textbook:		
1. Data Communication and Networking Behrouz A. Forouzan Tata McGraw Hill Fifth Edition 2. Computer Networks Andrew Tanenbaum Pearson Fifth		

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Mini-Project: 20 Marks

II. Semester End Examination (SEE)- 60 Marks

Course Code: SBSD307	Course Title: Software Testing (Credits :03 Lectures/Week:03)	
Learning Objectives	<ul style="list-style-type: none"> ➤ Various test processes and continuous quality improvement. ➤ Types of errors and fault models. ➤ Methods of test generation from requirements. ➤ Test adequacy assessment using: control flow, data flow, and program mutations ➤ The use of various test tools <p style="text-align: center;">Application of software testing techniques in commercial environments.</p>	
Course Description	To apply their knowledge and skills to be employed and excel in IT professional careers and/or to continue their education in IT and/or related post graduate programmes.	
	THOERY	(60 Lectures)
Unit I	<p>Fundamentals of testing: Necessity of testing, what is it, Testing principles, Fundamental test process, The psychology of testing</p> <p>Testing throughout the software life cycle: Software development models, Test levels, Test types: the targets of testing, Maintenance testing</p>	15 L
Unit II	<p>Static techniques: Reviews and the test process, Review process, Static analysis by tools</p> <p>Test design techniques: Identifying test conditions and designing test cases, Categories of test design techniques, Specification-based or black box techniques Structure-based or white-box techniques, Experience based techniques</p>	15 L
Unit III	<p>Test management: Test organization, Test plans, Estimates and strategies, Test progress monitoring and control Configuration management, Risk and testing Incident</p>	15 L
Unit IV	<p>Tool support for testing: Types of test tool, Effective use of tools, Potential benefits and risks, Introducing a tool into an organization</p>	15 L
ICA (Internal Continuous Assessment)	<ul style="list-style-type: none"> i. Internal Test: 20 Marks ii. Case Study: 20 Marks 	
<p>Textbook:</p> <ol style="list-style-type: none"> 1. Software Testing Foundations, 2nd Edition By Hans Schaefer, Andreas Spillner, Tilo Linz, Shroff Publishers and Distributors. 2. FOUNDATIONS OF SOFTWARE TESTING by Dorothy Graham, Erik van Veenendaal, 		

Evaluation Scheme

[A] Evaluation scheme for Theory courses

I. Continuous Assessment (C.A.) - 40 Marks

i) C.A.-I : Test – 20 Marks of 40 mins. duration

ii) C.A.-II : Case Study: 20 Marks

II. Semester End Examination (SEE)- 60 Marks



Course Code: SBSD304 PR	Advance Java (Credits :1.5 Practicals/Week:01) <ol style="list-style-type: none"> 1. Write a java program to present a set of choices for a user to select Stationary products and display the price of Product after Selection from the list. 2. Write a java program to demonstrate typical Editable Table, describing employee details for a software company 3. Write a java program using Split pane to demonstrate a screen divided in two parts, one part contains the names of Planets and another Displays the image of planet. 4. When user selects the planet name form Left screen, appropriate image of planet displayed in right screen. 5. Develop Simple Servlet Question Answer Application to demonstrate use of HttpServletRequest and HttpServletResponse interfaces. 6. Develop Servlet Application of Basic Calculator (+,-,*, /, %) using ServletInputStream and ServletOutputStream 7. Develop a JSP Application to accept Registration Details form user and Store it into the database table. 8. Develop a JSP Application to Authenticate User Login as per the registration details. 9. If login success the forward user to Index Page otherwise show login failure Message 10. Develop a web application to add items in the inventory using JSF.
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Evaluation Scheme

[B] Evaluation scheme for Practical courses

I. PEC(Test) -20Marks

II. Practical Exam (30 Marks)

Course Code: SBSD305 PR	Advance Web Designing & Programming Practical (Credits :1.5 Practicals/Week:01) <ol style="list-style-type: none"> 1. Implement the following for PHP: <ol style="list-style-type: none"> a) Write a program using Different types of datatypes. b) Write a program using String Functions. c) Write a program which displays the working of control statements. d) Write a program which displays the working of Operators. e) Write a program which displays the working of Arrays(). 2. Implement the following for Bootstrap: <ol style="list-style-type: none"> a) Write a program for tables b) Write a program for different styles of buttons c) Write a program for different progress bars d) Write a program for dropdowns e) Write a program for navbar 3. Implement the following for JQuery: <ol style="list-style-type: none"> a) Write a program for Selectors. <ol style="list-style-type: none"> a) Write a program for Event Methods. b) Write a program for Effects c) Write a program for Traversing d) Write a program for HTML Elements & attributes. 4. Implement the following for AngularJS: <ol style="list-style-type: none"> a) Write a program for Controllers b) Write a program for Events c) Write a program for Forms d) Write a program for Animation e) Write a program for Events
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Evaluation Scheme

[B] Evaluation scheme for Practical courses

I. PEC(Test) -20Marks

II. Practical Exam (30 Marks)

<p>Course Code: SBS306 PR</p>	<p>Data Communication and Networking Practical (Credits :1.5 Practicals / Week:01)</p> <p>1.IPv4 Addressing and Subnetting</p> <p>a) Given an IP address and network mask, determine other information about the IP address such as:</p> <ul style="list-style-type: none"> • Network address • Network broadcast address • Total number of host bits • Number of hosts <p>b) Given an IP address and network mask, determine other information about the IP address such as:</p> <ul style="list-style-type: none"> • The subnet address of this subnet • The broadcast address of this subnet • The range of host addresses for this subnet • The maximum number of subnets for this subnet mask • The number of hosts for each subnet • The number of subnet bits • The number of this subnet <p>2.Use of ping and tracert / traceroute, ipconfig / ifconfig, route and arp utilities.</p> <p>3.Configure IP static routing.</p> <p>4.Configure IP routing using RIP.</p> <p>5.Configuring Simple OSPF.</p> <p>6.Configuring DHCP server and client.</p> <p>7.Configuring DNS Server and client.</p> <p>8.Configuring OSPF with multiple areas.</p> <p>9.Create virtual PC based network using virtualization software and virtual NIC.</p> <p>10.Use of Wireshark to scan and check the packet information of following protocols</p> <ul style="list-style-type: none"> • HTTP • ICMP • TCP • SMTP • POP3
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Evaluation Scheme

[B] Evaluation scheme for Practical courses

I. PEC(Test) -20Marks

II. Practical Exam (30 Marks)

Course Code: SBSD307PR	Practical Title: Software Testing(Credits : 1.5 Practicals/Week: 01) 1. Testing of Life Cycle a. Prepare a small project and submit SRS, design, coding and test plan. b. You have got the brilliant idea of setting up a company that sells testing services to software houses 2. Static Testing a. Design test cases for testing the program with the black-box strategy. b. Construct a control-flow graph for the program c. Design test cases for reaching complete branch coverage over the program d. Construct a data-flow graph for the program 3. Dynamic Testing with Script a. Manual Testing b. Functional Testing 4. Dynamic Testing with drivers a. Regression Testing b. Automated Testing c. Agile Development Testing
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Evaluation Scheme

[B] Evaluation scheme for Practical courses

I. PEC(Test) -20Marks

II. Practical Exam (30 Marks)

JAI HIND COLLEGE

**BASANTSING INSTITUTE OF SCIENCE & J. T. LALVANI COLLEGE OF COMMERCE.
MUMBAI-400020.**

Class: Paper-

Subject:

Time:

Day & Date:

Total Marks :60

PLEASE READ CAREFULLY THE WARNING PRINTED ON THE ANSWER BOOK IN CONNECTION WITH THE USE TO UNFAIR MEANS.

- General Instructions:-
1. All questions are Compulsory
 2. Numbers to the right indicate maximum marks
 3. Answers to the sub-questions of the same question must be written together.
 4. Each question carries 5 marks.

Q1)	Answer <u>two</u> of the following questions (Based on Unit 1)	(10 marks)
1)		(5)
2)		(5)
3)		(5)
4)		(5)
Q2)	Answer <u>two</u> of the following questions (Based on Unit 2)	(10 marks)
1)		(5)
2)		(5)
3)		(5)
4)		(5)
Q3)	Answer <u>two</u> of the following questions (Based on Unit 3)	(10 marks)
1)		(5)
2)		(5)
3)		(5)
4)		(5)
Q4)	Answer <u>two</u> of the following questions (Based on Unit 4)	(10 marks)
1)		(5)
2)		(5)
3)		(5)
4)		(5)
P.T.O	

Q5)	Answer <u>four</u> of the following questions (Based on all units)	(20 marks)
1)		(5)
2)		(5)
3)		(5)
4)		(5)
5)		(5)
6)		(5)
7)		(5)
8)		(5)



JAI HIND COLLEGE
BASANTSING INSTITUTE OF SCIENCE & J. T. LALVANI COLLEGE OF
COMMERCE.

MUMBAI 400020.

CLASS:

TIME:

SUBJECT:

DATE:

SEMESTER II PRACTICAL EXAMINATION

Examination Total 50 Marks:

1) Practical Examination – 30 Marks

1)	a) Questions on Practical programs	(10 marks)
	b) Questions on Practical programs	(10 marks)
	c) Journal	(5 marks)
	d) Viva	(5 marks)

2) Internal Examination- 20 Marks

2)	a) Practical Programs/case study	(10 marks)
	b) Practical Programs/case study	(10 marks)
	OR	
	a) Mini Project	(20 Marks)