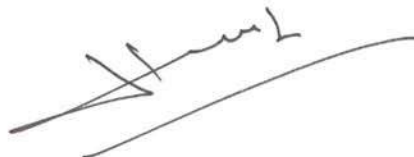


### Scheme of B.Sc.-IT (Information Technology)

Year	Course Code	Subject Name	Theory/ Practical	Total Credit	Total Marks	
					Max	Min
First	BSCIT-1T	Computer Fundamental and Operating System	Theory	4	50	17
	BSCIT-2T	Programming with C and C++	Theory	4	50	17
	BSCIT-1P	LAB 1: Programming with C and C++	Practical	2	50	17
Second	BSCIT-3T	Data Communication and Networking	Theory	4	50	17
	BSCIT-4T	Web Technology and Java	Theory	4	50	17
	BSCIT-2P	LAB 2: Web Technology and Java	Practical	2	50	17
Third	BSCIT-5T	Data Structure	Theory	4	50	17
	BSCIT-6T	Python Programming	Theory	4	50	17
	BSCIT-3P	LAB 3: Python Programming	Practical	2	50	17
<b>Total</b>				<b>30</b>	<b>450</b>	

**Note:** There shall be four extra credits in all the years of under graduation for internship/apprenticeship. The certificate of extra credits would be provided by the concern university and is not mandatory.



<b>Part A: Introduction</b>			
Program: <b>Diploma Course</b>		Class: <b>B.Sc.-IT II Year</b>	Year: <b>2022</b>
		Session: <b>2022-2023</b>	
1.	Course Code	<b>BSCIT-3T</b>	
2.	Course Title	<b>Data Communication and Networking</b>	
3.	Course Type	<b>Theory</b>	
4.	Pre-requisite (if any)	No	
5.	Course Learning Outcomes (CLO)	At the end of this course, the students will be able to: <ul style="list-style-type: none"> <li>• Understand the basic computer network technology</li> <li>• Understand and explain the data communication system and its components.</li> <li>• Identify the different types of network topologies and protocols.</li> <li>• Understand the layers of the OSI model and TCP/IP.</li> <li>• Expose wireless and wired LANs.</li> </ul>	
6.	Credit Value	<b>Theory: 5</b>	
7.	Total Marks	<b>Max. Marks: 50</b>	<b>Min Passing Marks: 17</b>

<b>Part B: Content of the Course</b>		
Total Periods: 60		
Unit	Topics	No. of Periods
I	<b>Overview of Data Communication and Networking:</b> Data Communications: components, data representation, direction of data flow (simplex, half duplex , full duplex; Networks : distributed processing, network criteria , physical structure (type of connection , topology), categories of network (LAN, MAN, WAN), Protocol and standards; Reference Models: OSI & TCP/IP reference model comparative study.	12
II	<b>Physical layer:</b> Analog and Digital Transmission: Transmission Impairments, Data Rates Limits, Digital to Digital Conversion, Digital to Analog conversion, Analog To Digital Conversion: Modulation, Transmission Modes, Parallel, Serials Asynchronous and Synchronous communication; Constellation Diagram, Analog to Analog conversion, Bandwidth Utilization, Transmission Media: Multiplexing: FDM, WDM AND TDM, Guided Media: Twisted Pair, Coaxial and Fiber Optic, Unguided Media : Wireless , Radio Waves, Microwaves and Infrared.	12
III	<b>Data Link Layer:</b> Flow control: Protocols: Stop & wait ARQ, Go-Back-N ARQ, Selective repeat ARQ, HDLC; Medium Access Sub-layer: Point to point protocol, LCP, NCP, FDDI, token bus, token ring; Multiple Access Protocols: Pure ALOHA, Slotted ALOHA, CSMA, CSMA/CD, FDMA, TDMA, CDMA; Traditional Ethernet, Fast Ethernet.	12
IV	<b>Network Layer:</b> Internetworking Devices: Repeaters , Hubs , Bridges, Switches, Router , Gateway; Addressing: Internet address, classful address, subnetting, classless address; Routing: Techniques, static vs dynamic routing, and routing table for classful address; Routing Algorithms: Shortest path algorithm, flooding , distance vector routing , link state routing; Protocols: ARP, RARP, IP, ICMP, IPV6; Unicast and multicast routing protocols;	12

v.	<b>Transport Layer and Application Layer:</b> UDP,TCP; Congestion control algorithm: Leaky bucket algorithm, Token bucket algorithm, choke packets; Quality of service: techniques to improve Qos; DNS,SMTP, SNMP,FTP, HTTP, Firewalls; Modern Topics: Wireless LAN: IEEE 802.11;Introduction to Bluetooth,VLAN's, Cellular telephony & Satellite network.	12
<b>Keywords:</b> Networking Model, Communication Protocol, Transmission Media, Internetworking Devices.		

<b>Part C: Learning Resources</b>	
Text Books, Reference Books, Other Resources	
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Data Communications and Networking, B.A. Forouzan, TMH, (Latest Edition)</li> <li>2. Computer Networks, A.S. Tanenbaum, 4<sup>th</sup> Edition, Pearson Education/PHI</li> <li>3. Data and Computer Communication, W. Stallings, 5<sup>th</sup> Edition, PHI/Pearson Education</li> <li>4. Computer Networking – A top down approach featuring the internet, Kurose and Rose, Pearson Education.</li> <li>5. Communication Networks, Walrand, TMH (Latest Edition)</li> </ol>	
<b>E Resources:</b>	
<ol style="list-style-type: none"> <li>1. NPTEL URL link for Data Communication: <a href="https://nptel.ac.in/courses/106105082">https://nptel.ac.in/courses/106105082</a> Topics From SWAYAM Portal</li> <li>2. Introduction to Data Communication <a href="https://www.youtube.com/watch?v=swtH_okidQc&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=1">https://www.youtube.com/watch?v=swtH_okidQc&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=1</a></li> <li>3. Layered Architecture <a href="https://www.youtube.com/watch?v=xHO6LjSHeo0&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=2">https://www.youtube.com/watch?v=xHO6LjSHeo0&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=2</a></li> <li>4. Data and Signal <a href="https://www.youtube.com/watch?v=6ZGVZ7gUccE&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=3">https://www.youtube.com/watch?v=6ZGVZ7gUccE&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=3</a></li> <li>5. Guided Transmission Media <a href="https://www.youtube.com/watch?v=y7v3EAJsWXA&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=5">https://www.youtube.com/watch?v=y7v3EAJsWXA&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=5</a></li> <li>6. Unguided Transmission Media <a href="https://www.youtube.com/watch?v=hKq1tYIVxdQ&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=6">https://www.youtube.com/watch?v=hKq1tYIVxdQ&amp;list=PLUtfVcb-iqn8dG1-Cn7NTEdILR3hRVgcN&amp;index=6</a></li> </ol>	
<b>Part D: Assessment and Evaluation</b>	
Maximum Marks: 50	

### Declaration

The syllabus of this subject is frame as per the TOR of department of higher education, Chhattisgarh.

1. Dr. H.S. Hota  
Prof. and Head, Dept. of Computer Science and Application
2. Dr. Sanjay Kumar

- Chairman  
- Member

*[Signature]*  
03.06.2022  
*[Signature]*  
03.06.2022

- Prof. and Head, SoS in Computer Science, Pt. Ravishankar Shukla University,  
Raipur
3. Mr. Jitendra Kumar - Member *Jitendra*  
Asst. Prof., Dept. of Computer Science and Application  
Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur 3/6/22
  4. Mr. H.S.P. Tonde - Member *H.S.P. Tonde*
  5. Dr. Mamta Singh - Member *Mamta Singh*  
Asst. Prof. and Head, Sai College, Bhilai  
Hemchand Yadav Vishwavidyalaya, Durg
  6. Mr. Sushil Kumar Sahu - Member *Sushil*  
Asst. Prof. and Head, Christ College, Jagdalpur  
Shaheed Mahendra Karma Vishwavidyalaya, Bastar 3/6/2022
  7. Mr. Vikrant Gupta - Member *Vikrant*  
Prof. and Head, Batmul Ashram College, Salheana  
Shaheed Nand Kumar Patel University, Raigarh
  8. Mr. L.K. Gavel - Member *L.K. Gavel*  
Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod 3/6/22  
Hemchand Yadav Vishwavidyalaya, Durg
  9. Dr. Anil Kumar Sharma - Member *Anil Kumar Sharma*  
Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha 03/06/22  
Hemchand Yadav Vishwavidyalaya, Durg
  10. Mr. Vishwnath Tamrakar - Member *Vishwnath*  
Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud,  
Pt. Ravishankar Shukla University, Raipur
  11. Ms. Anjeeta Kujur - Member *Anjeeta*  
Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur  
Sant Gahira Guru University Sarguja, Ambikapur 03/06/22
  12. Mr. Suresh Kumar Thakur - Member *Suresh*  
Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar 03/6/22  
Hemchand Yadav Vishwavidyalaya, Durg
  13. Dr. Ugrasen Suman - Member  
Prof. and Head, Dept. of Computer Science  
Devi Ahila Vishwavidyalaya, Indore (Present Online)

Date: 03.06.2022

<b>Part A: Introduction</b>			
Program: <b>Diploma Course</b>		Class: <b>B.Sc.-IT II Year</b>	Year: <b>2022</b> Session: <b>2022-2023</b>
1.	Course Code	<b>BSCIT-4T</b>	
2.	Course Title	<b>Web Technology and Java</b>	
3.	Course Type	<b>Theory</b>	
4.	Pre-requisite (if any)	Basic understanding of programming concepts and programming language	
5.	Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able to:</p> <ul style="list-style-type: none"> <li>● Create applications using HTML, CSS and Java Script.</li> <li>● Understand fundamental tools and technologies for web design.</li> <li>● Specify design rules in constructing web pages and sites.</li> <li>● Understand how Web pages are designed and created.</li> <li>● Design console-based GUI based and Web based application.</li> <li>● Front end designing using html, CSS, java script and bootstrap.</li> <li>● Develop server-side programs in the form of Servlet.</li> <li>● Designing Web application by using JSP as a server-side programming.</li> <li>● Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's Create web pages using HTML and Cascading Styles sheets.</li> <li>● Analyze a web page and identify its elements and attributes Create dynamic web pages using JavaScript.</li> <li>● Build web applications using jsp and Servlet.</li> </ul>	
6.	<b>Credit Value</b>	<b>Theory:4</b>	
7.	<b>Total Marks</b>	<b>Max. Marks: 50</b>	<b>Min Passing Marks : 17</b>

<b>Part B: Content of the Course</b>		
Total Periods: 60		
<b>Unit</b>	<b>Topics</b>	<b>No. of Periods</b>
<b>I</b>	<p><b>Introduction:</b> Overview of WWW, Web page, Web browsers, HTTP, URL, Hypertext, Web server, Tools for web site development, hosting options and domain name registration.</p> <p><b>Markup language:</b> Introduction, DTD, Creating Web pages, Headings, Paragraphs, Lists, Hyperlinks, Tables, Web forms, Input Types, Input Attributes, Inserting images, Frames, Basics of DHTML, XML , XHTML.</p>	12
<b>II</b>	<p><b>Web Development:</b> CSS-Introduction, Syntax, measurement units, colors, Backgrounds, Font, Text, position, Align, Images, Link, Table, List, Padding.</p> <p><b>JavaScript:</b> Overview, syntax, Variables, Operators, Decision control statement, Looping statement, JavaScript functions, Java script Events, Cookies, Page Redirect, and Validation.</p> <p><b>Bootstrap:</b> Introduction, Grid system, typography, tables, images, dropdowns, jumbotron, them, template and forms.</p> <p><b>PHP:</b> Introduction, syntax, variables, operators, functions, include, get method, post method, cookies, session, PHP form validation, exception.</p>	12

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III	<b>JAVA:</b> Primitive Data Types, Variables, Array, operators, control statements, classes and objects, Abstract Classes, Polymorphism, Inheritance, Method Over-writing, method overriding, constructor, super keyword, this keyword, final static, package and interface, Multi-threading and Exception Handling, Collection Framework. Introduction to applet.	12
IV	<b>Java Server Page (JSP):</b> Basics of Servlet, writing simple program in Servlet, Introduction to Java Server Page (JSP), Embedding Java Code into HTML, Implicit JSP Objects, Overview of the JSP Tags, Directives, Declarations, Expressions, Deploying Servlet and JSP, JSTL, JSP Action elements: jsp:forward, jsp:include, JSP Request, JSP Response, JSP Config, JSP Session, Cookies, JSP Exception Handling.	12
V	<b>Database Using JDBC:</b> Concept, JDBC Driver Types, JDBC package, establishing a database connection and executing SQL Statements.	12
<b>Keywords:</b> Web Designing, Collection Framework, Servlet, JSP, JDBC, Database Connectivity.		

### Part C: Learning Resources

Text Books, Reference Books, Other Resources

#### Suggested Readings:

1. The Complete Reference JAVA, Herbert Scheldt, Tata McGraw Hill publication, 5<sup>o</sup> Edition.
2. Advance JAVA, Gajendra Gupta, Firewall Media, 1<sup>o</sup> Edition, 2006.
3. JAVA network programming, Elliotte Rusty Harold, O'Reilly Publication, 3<sup>o</sup> Edition.
4. Core Java for Beginners, Rashmi Kanta Das, Vikas Publishing House Pvt. Ltd.
5. Internet and Internet Engineering, Daniel Minoli, TMH (Latest Edition)
6. Java Script, Gosslin, Vikas (Latest Edition)
7. HTML The Definite Guide, Chuck musiano& Bill Kenndy, O Reilly (Latest Edition).

#### E Resources:

1. Introduction to web-app  
[https://www.youtube.com/watch?v=IznP3tRRTzw&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=22](https://www.youtube.com/watch?v=IznP3tRRTzw&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=22)
2. Building web-app  
[https://www.youtube.com/watch?v=kiEn4LqAQIE&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3](https://www.youtube.com/watch?v=kiEn4LqAQIE&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3)
3. Introduction to Java Script  
[https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10](https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10)
4. Introduction to Database  
[https://www.youtube.com/watch?v=mtc0HHrUKpI&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=12](https://www.youtube.com/watch?v=mtc0HHrUKpI&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=12)
5. Introduction to SQL  
[https://www.youtube.com/watch?v=ar2naKy0aPw&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=16](https://www.youtube.com/watch?v=ar2naKy0aPw&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=16)
6. Introduction to Java  
[https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLfn3cNtmZdPOe3R\\_wO\\_h540QNfMkCQ0ho&index=1](https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLfn3cNtmZdPOe3R_wO_h540QNfMkCQ0ho&index=1)  
<https://www.w3schools.com/java/>

7. Introduction to Web Technology: <a href="https://www.w3schools.com/">https://www.w3schools.com/</a>
<b>Part D: Assessment and Evaluation</b>
Maximum Marks: 50

### Declaration

The syllabus of this subject is frame as per the TOR of department of higher education, Chhattisgarh.

- |  |   |                            |   |
|--|---|----------------------------|---|
| 1. Dr. H.S. Hota<br>Prof. and Head, Dept. of Computer Science and Application  | - | Chairman                   | <i>[Signature]</i><br>03.06.2022                              |
| 2. Dr. Sanjay Kumar<br>Prof. and Head, SoS in Computer Science, Pt. Ravishankar Shukla University,<br>Raipur                                 | - | Member                     | <i>[Signature]</i><br>03-06-2022                              |
| 3. Mr. Jitendra Kumar<br>Asst. Prof., Dept. of Computer Science and Application<br>Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur            | - | Member                     | <i>[Signature]</i><br>31/6/22                                 |
| 4. Mr. H.S.P. Tonde<br>Asst. Prof. and Head, Dept. of Computer Science,<br>Sant Gahira Guru University Sarguja, Ambikapur                    | - | Member                     | <i>[Signature]</i><br>Tonde                                   |
| 5. Dr. Mamta Singh<br>Asst. Prof. and Head, Sai College, Bhilai<br>Hemchand Yadav Vishwavidyalaya, Durg                                      | - | Member                     | <i>[Signature]</i><br>31/6/22                                 |
| 6. Mr. Sushil Kumar Sahu<br>Asst. Prof. and Head, Christ College, Jagdalpur<br>Shaheed Mahendra Karma Vishwavidyalaya, Bastar                | - | Member                     | <i>[Signature]</i><br>31/6/2022                               |
| 7. Mr. Vikrant Gupta<br>Prof. and Head, Batmul Ashram College, Salheana<br>Shaheed Nand Kumar Patel University, Raigarh                      | - | Member                     | <i>[Signature]</i>  |
| 8. Mr. L.K. Gavel<br>Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod<br>Hemchand Yadav Vishwavidyalaya, Durg             | - | Member                     | <i>[Signature]</i><br>03/06/22                                |
| 9. Dr. Anil Kumar Sharma<br>Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha<br>Hemchand Yadav Vishwavidyalaya, Durg          | - | Member                     | <i>[Signature]</i><br>03/06/22                                |
| 10. Mr. Vishwnath Tamrakar<br>Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud,<br>Pt. Ravishankar Shukla University, Raipur | - | Member                     | <i>[Signature]</i><br>Not Agree because<br>Syllabus is longer |
| 11. Ms. Anjeeta Kujur<br>Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur<br>Sant Gahira Guru University Sarguja, Ambikapur      | - | Member                     | <i>[Signature]</i><br>03/06/22                                |
| 12. Mr. Suresh Kumar Thakur<br>Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar<br>Hemchand Yadav Vishwavidyalaya, Durg  | - | Member                     | <i>[Signature]</i><br>03/06/22                                |
| 13. Dr. Ugrasen Suman<br>Prof. and Head, Dept. of Computer Science<br>Devi Ahila Vishwavidyalaya, Indore                                     | - | Member<br>(Present Online) |   |

Date: ~~03~~ 03.06.2022

<b>Part A: Introduction</b>			
Program: <b>Diploma Course</b>		Class: <b>B.Sc.-IT II Year</b>	Year: <b>2022</b> Session: <b>2022-2023</b>
1.	Course Code	<b>BSCIT-2P</b>	
2.	Course Title	<b>LAB: Web Technology and JAVA</b>	
3.	Course Type	<b>Practical</b>	
4.	Pre-requisite (if any)	Theoretical knowledge of HTML, CSS, JavaScript and JAVA	
5.	Course Learning Outcomes (CLO)	<p>At the end of course, Students will be able to:</p> <ul style="list-style-type: none"> <li>• Develop web-based application.</li> <li>• Develop front end application using front end technologies.</li> <li>• Demonstrate the principles of object-oriented programming.</li> <li>• Create multi-threaded programs and event handling mechanisms</li> <li>• Develop simple GUI interfaces for a computer program to interact with users.</li> <li>• Use form validation on web page.</li> <li>• Develop server-based application using Servlet and JSP.</li> </ul>	
6.	Credit Value	<b>Practical: 2</b>	
7.	Total Marks	<b>Max. Marks: 50</b>	<b>Min Passing Marks : 17</b>

<b>Part B: Content of the Course</b>	
Total Periods: 30	
<b>Tentative Practical List</b>	<p><b>Note:</b> This is tentative list; the teachers concern can add more program as per requirement.</p> <p>Developing Web based application based on the concept of Web design technologies and Java programming.</p> <ol style="list-style-type: none"> <li>1. Design a Login Page by using HTML and CSS.</li> <li>2. Write a program to perform validation on web page.</li> <li>3. Design a web page to demonstrate registration form of student.</li> <li>4. Design a from by using HTML and CSS who will take input from the user through Java-script Function and check weather it is integer or not.</li> <li>5. Design a device friendly web page which should be able to resize the display depending on the device by using bootstrap.</li> <li>6. Write a java program to create an abstract class named shape that contains two integers and an empty method named print Area () Provide three classes named Rectangle. Triangle and Circle such that each one of the classes extends the class shape. Each one of the class contains only the method print Area () that print the area of the given shape.</li> <li>7. Write a Java program that implements a multithreaded program that has three threads. First thread generates a random integer every 1 second and if the value</li> </ol>



is odd the third thread will print the value of the cube of the number.

8. Write a java program which creates a list containing ice cream flavours. On selection of any flavour price should be displayed in a text field.
9. Write a JDBC program to create a table product (id number, name varchar. Price varchar). And insert a record in the table.
10. Write a program to execute a select query using JDBC.
11. Write a program to execute an Update query using JDBC.
12. Write a server program to return the square root of a number to the client using Socket.
13. Write a server program to return Date and time to clients using socket programming.
14. Write a JSP program for basic arithmetic functions.
15. Write a advance java program to implement registration of student by using JSP.
16. Write a program to design a web page for login form and connect to the database while using JSP and JDBC.
17. Write a program to design a simple calculator using  
(a) JavaScript (b) Servlet and (c) JSP.
18. A web application that lists all cookies stored in the browser on clicking "List Cookies" button. Add cookies if necessary.
19. Write a java program that connects to a database using JDBC and does add, deletes, modify and retrieve operations.
20. Develop an applet that displays a simple message.

### Part C: Learning Resources

Text Books, Reference Books, Other Resources

#### Suggested Readings:

1. The Complete Reference JAVA, Herbert Scheldt, Tata McGraw Hill publication, 5<sup>th</sup> Edition.
2. Advance JAVA, Gajendra Gupta, Firewall Media, 1<sup>st</sup> Edition, 2006.
3. JAVA network programming, Elliotte Rusty Harold, O'Reilly Publication, 3<sup>rd</sup> Edition.
4. Core Java for Beginners, Rashmi Kanta Das, Vikas Publishing House Pvt. Ltd.
5. Internet and Internet Engineering, Daniel Minoli, TMH (Latest Edition)
6. Java Script, Gosslin, Vikas (Latest Edition)
7. HTML The Definite Guide, Chuck musiano & Bill Kenndy, O Reilly (Latest Edition).

#### E Resources:



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- Building web-app  
[https://www.youtube.com/watch?v=kIE4LqAQIE&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3](https://www.youtube.com/watch?v=kIE4LqAQIE&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3)
- Introduction to Java Script  
[https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10](https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10)
- Introduction to Database  
[https://www.youtube.com/watch?v=mtc0HHrUKpI&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=12](https://www.youtube.com/watch?v=mtc0HHrUKpI&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=12)
- Introduction to SQL  
[https://www.youtube.com/watch?v=ar2naKy0aPw&list=PLJ5C\\_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=16](https://www.youtube.com/watch?v=ar2naKy0aPw&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=16)
- Introduction to Java  
[https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLfn3cNtmZdPOe3R\\_wO\\_h540QNfMkCQ0ho&index=1](https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLfn3cNtmZdPOe3R_wO_h540QNfMkCQ0ho&index=1)

#### Part D: Assessment and Evaluation

##### Suggested Continuous Evaluation Methods:

Maximum Marks: 50

Continuous Comprehensive Evaluation (CCE): Not Applicable

University Exam(UE): 50 Marks

##### Internal Assessment:

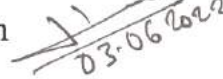

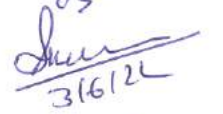


Continuous Comprehensive Evaluation (CCE)

Class Test/Assignment/Presentation

Not Applicable

#### Declaration

The syllabus of this subject is frame as per the TOR of department of higher education, Chhattisgarh.

1. Dr. H.S. Hota  
Prof. and Head, Dept. of Computer Science and Application  
- Chairman  03-06-2022
2. Dr. Sanjay Kumar  
Prof. and Head, SoS in Computer Science, Pt. Ravishankar Shukla University Raipur  
- Member  03-06-2022
3. Mr. Jitendra Kumar  
Asst. Prof., Dept. of Computer Science and Application  
Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur  
- Member  3/6/22
4. Mr. H.S.P. Tonde  
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- Member  3/6/22
5. Dr. Mamta Singh  
- Member  3/6/22

- Asst. Prof. and Head, Sai College, Bhilai  
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6. Mr. Sushil Kumar Sahu - Member *Sushil*  
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Shaheed Mahendra Karma Vishwavidyalaya, Bastar
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- Prof. and Head, Batmul Ashram College, Salheana  
Shaheed Nand Kumar Patel University, Raigarh
8. Mr. L.K. Gavel - Member *L.K. Gavel*  
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Not agreed bcz syllabus  
is lengthy.
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13. Dr. Ugrasen Suman - Member  
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Date: 03.06.2022