GOVT. HOLKAR AUTONOMOUS SCIENCE COLLEGE INDORE
(CENTER FOR EXCELLENCE)
Academic Year: 2022-2023

Affiliated to Devi Ahilya Vishwavidyalaya, Indore

Syllabus for B.C.A.(III Semester)

Computer Application

(Faculty of Computer Science)

DEPARTMENT OF COMPUTER SCIENCE

GOVT. HOLKAR AUTONOMOUS SCIENCE COLLEGE INDORE
Semester Syllabus for Undergraduates (Computer Applications)
As recommended by Central Board of Studies of Computer Science and Approved by H E the Governor of M.P.
Academic Year: 2022-2023
Class: B.C.A.III Semester (Computer Applications) for Regular Student

				Govt. Holkar (Model Autonomous) Science College, Indore								
				Computer Science Department								
				Syllabus Session Year: 2022-23								
Programme :Diploma in Application								Class :B.C.A. III Semester				
S.No.	**Paper**	**Paper Title**	**Paper Code**	**Theory Max. Marks 100**				**Practical Max. Marks 100**				
				Credits	**CCE**	**Exter. Asses.**	**Min Marks**	**Credits**	**Inter. Asses.**	**Exter. Asses.**	**Min. Mark.**	**Total Credit**
1	Core Course	Data Communication and Computer Networks	S3-51-I	4	40	60	35	2	40	60	35	6
2	Minor	Internet Applications using Java Programming	S3-51-M	4	40	60	35	2	40	60	35	6
3	Open Elective	E-Commerce	S3-51-O-A	4	40	60	35					4
4.	Open Elective	Organization Behaviour	S3-51-O-B	4	40	60	35					4
5	Vocational	Web Designing - I	S3-06/51-V	4	40	60	35					4

B.C.A. III Semester Computer Applications
S3-51-I: Data Communication and Computer Networks
Academic Year: 2022-2023

Part-A Introduction			
Program: Diploma	**Class: B.C.A.**	**Semester: III**	**Session: 2022-23**
Subject: Computer Applications			
Course Code: S3-51-I	**Course Title: Data Communication and Computer Networks**		
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Core Course**		
Pre-requisite (If any):	To study this course, a student must have the basic knowledge of Computers.		
Course Learning Outcomes (CLO)	**After the completion of this course, a successful student will be able to do the following:** 1. Demonstrate the Basic Concepts of Networking, 2. Networking Principles, Routing Algorithms, IP Addressing and Working of Networking Devices. 3. Demonstrate the Significance, Purpose and application of Networking Protocols and Standards. 4. Describe, compare and contrast LAN, WAN, MAN, Intranet, Internet, AM, FM, PM and Various Switching Techniques. 5. Explain the working of Layers and apply the various protocols of OSI & TCP/IP model. 6. Analyze the Requirements for a Given Organizational Structure and Select the Most Appropriate Networking Architecture and Technologies. **7.** Design the Network Diagram and Solve the Networking Problems of the Organizations with Consideration of Human and Environment. Install and Configure the Networking Devices.		
Credit value	**Theory – 4 Credits**		
Total Marks	**Max. Marks: 40+60**		**Min. Passing Marks: 35**

B.C.A. III Semester Computer Applications
S3-51-I: Data Communication and Computer Networks
Academic Year: 2022-2023

Part-B: Content of the Course		
No. of Lectures (in hours per week):		2 Hrs. per week
Total no. of Lectures:		60 Hrs.
Para	**Topics**	**No. of Lectures**
I	Network goals and application, Network structure, Network services, Example of networks and Network Standardization. **Networking models:** centralized, distributed and collaborative. **Network Topologies:** Bus, Star, Ring, Tree, Hybrid: Selection and Evaluation factors.	**10**
II	Theoretical Basis for Data communication, Transmission media, Twisted pair (UTP, STP), Coaxial Cable, Fiber optics: Selection and Evaluation factors. Line of Sight Transmission, Communication Satellites. Analog and Digital transmission. Transmission and switching, frequency division and time division multiplexing, STDM, Circuit switching, packet switching and message switching.	**10**
III	**Brief Overview of LAN (Local Area Network):** Classification. Brief overview of Wide Area Network (WAN). Salient features and differences of LAN with emphasis on: Media, Topology, Speed of Transmission, Distance, Cost. Terminal Handling, Polling, Token passing, Contention. IEEE Standards: their need and developments.	**10**
IV	**Open System:** What is an Open System? Network Architectures, ISO-OSI Reference Model, Layers: Application, Presentation, Session, Transport, Network, Data Link & Physical. **Physical Layer** - Transmission, Bandwidth, and Signaling devices used media type. **Data Link Layer** - : Addressing, Media Access Methods, Logical link Control, Basic algorithms/protocols.	**15**
V	**Network Layer:** Routing: Fewest-Hops routing, Type of Service routing, Updating Gateway routing information. Brief overview of Gateways, Bridges and Routers, Gateway protocols, routing daemons. OSI and TCP/IP model. TCP/IP and Ethernet. The Internet: The structure of the Internet, the internet layers, Internetwork problems. Internet Standards.	**15**

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:

Textbooks:

- Tannanbaum, A.S.: Computer Networks, Prentice Hall, 1985.processing, Prentice Hall,1983.
- Black: Computer Networks: Protocols, standords and Interfaces, Prentice Hall International Tannanbaum, A.S.: Computer Networks, Prentice Hall, 1985.processing, Prentice Hall, 1983.
- Fourauzan B., "Data Communications and Networking", 3rd edition, TataMcGraw-HillPublications,

Reference Books:

- Comer D., "Computer Networks and Internet", 2ND Edition, Pearson Education.
- S.K.Basandra& S. Jaiswal, "Local Area Networks", Galgoti Publications
- William Stallings, "Data and Computer Communication".
- Book published by M.P. Granth Academy, Bhopal

Suggestive digital platform web links :

1. https://npteI.ac.in/courses/106/105/106105082/
2. http://cse.iitkqp.ac.in/-sandipc/courses/cs31006/slides/application layer.pdf
3. https://onlinecourses.nptel.ac.in/noc22ee61/Preview
4. https://nptel.ac.in/course.html
5. https://Pll.harvard.edu/subiect/computer-networking
6. http://www.mohindiqranthacademy.orq/
7. http://www.mphindigranthacademy.org/

Suggested equivalent online courses:

NPTEL:

1. Demystifying Networking (04 weeks)
2. https://www.edx.org//1earn/computer-networking

Part-D: Assessment and Evaluation

Internal Assessment: Continuous Comprehensive Evaluation (CCE): **40 Marks** Shall be based on allotted assignments and Class Test. The division of marks is as follows:			External Assessment: University Exam (UE): **60 Marks** Time: **03:00** Hours	
A. Submission of Assignment followed by Presentation			**Section A**: 03 Very Short Questions	03x02 = 06 Marks
B. Class Test	**Best Two test marks 20 Marks**	**Best two test Marks 40 Marks**	**Section B:** Four Short Questions (200 Words Each)	04x08 = 32 Marks
Test I (Written Test)	20 Marks			
Test I (Written Test)	20 Marks		**Section C:** Two Long Questions (500 Words Each)	02x11 = 22 Marks
Test III (Quiz/ Seminar/ Assignment)	20 Marks			
Total Internal Assessment (Theory) Marks (A+B)	**40 Marks**		Total External Evaluation (Theory) Marks (A+B+ C)	**60 Marks**
Any remark/ Suggestion: Focus of the course/ teaching should be on developing ability of the student in analyzing a problem, building the logic and efficient code for the problem.				

Part-A Introduction

Program: Diploma	**Class:** B.C.A.	**Semester:** III	**Session:** 2022-23

Subject: Computer Applications	
Course Code: S3-51-PI	**Course Title:** Computer Networks Lab
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Core Course**
Pre-requisite (If any):	Open for All
Course Learning Outcomes (CLO)	**After Completing this lab course, student will be able to:** 1. Learn and identify various cables used in the networking. 2. Learn, identify various connector used to connect different cables. 3. Use the various tools for preparing the connectors for cables. 4. Configure and manage various local area networks at home and at work place.
Credit value	**Practical- 2 Credits**
Total Marks	**Max. Marks: 40+60** — **Min. Passing Marks: 35**

B.C.A. III Semester Computer Applications
S3-51-PI: Computer Networks Lab
Academic Year: 2022-2023

Part-B: Content of the Course		
No. of Lab Practical's (in hours per week):		1 Hrs. per week
Total no. of Labs:		30 Hrs.
	Suggestive list of Practical's	**No. of Labs.**
	1. **Study of UTP network cable:** • Study the Color code of UTP cable • Categories of UTP n/w cable • Shielding of n/w cable • Electricity interference with n/w cable • Maximum Length for which data cable can be used • Crimping of RJ45 connector and Punching of data n/w. cable • Penta scanning of cabling work • Rule of UTP laying 2. **Knowledge of Structured Cabling and its components** • Information outlet with box • Network Rack (4U, 6U, 9U, 12U, 24U, 24U, 32U, 42U) • Patch Panel • Rack Management 3. **Study of Optical Fiber Cable** • Different cores of OFC (6 core, 12, 24 core) • Multimode & Single mode OFC cable • Shielding of OFC • Splicing/Termination of OFC • OTDR Testing • LIU fixing • LIU management (pigtail/fiber patchcord) • Media Convertor • SFP module • Rules of OFC laying 4. **Use of Tools** • Crimping Tool • Punching Tool • Nose plier • Wire Stripping and Cable Cutter • Multimeter	30

	• RJ45 RJ11 RJ12 Cat5 Cat6 Network Cable Tester • In-Line Coupler (RJ45 F/F) • RJ45 NETWORK SPLITTER ADAPTER 2-way. **5. Configuration / Management of Local Area Network** • Implementation of file and printer sharing. • Installation of ftp server and client. • Connect the computers in Local Area Network. • Configuring Class A IP Address on LAN Connection in Computer LAB and then use following tools: Ping, ipconfig, getmac, hostname, nslookup, tracert, arp, pathping, systeminfo. • Configure static routing using packet tracer software • Configure Dynamic routing using packet tracer • Configure VLAN using Managed switch Device/ Packet tracer • Implementation of Subnetting in Class A, B and C • Ping between 2 systems using IPv6 • Configuration of NAT for incoming packet request • Configuration of Software / Hardware firewall to block outgoing request to facebook.com	

B.C.A. III Semester Computer Applications
S3-51-PI: Computer Networks Lab
Academic Year: 2022-2023

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:

- Andrew S. Tanenbaum, Nick Feamster, David J. Wetherall, Computer Networks, 6th Edition,(2021), Pearson.

- Michael E Whitman and Herbert I Mattord, Principles of Information Security, Fourth Edition, CENGAGE Learning, 6th Indian Reprint.

- Books published by M.P. Hindi Granth Academy, Bhopal

Reference Books:

- Hacking Exposed, Stuart McClure, Joel Scrambray, George Kurtz, TMH.

- Computer Security Art and Science, Matt Bishop, Pearson/PHI.

Suggestive digital platform web links :

1. https://www.edx.org/learn//computer-networking
2. http://www.mphindigranthacademy.org/

Suggested equivalent online courses:

1. https://nptel.ac.in/courses/106/105/106105081/

Part-D: Assessment and Evaluation	
Internal Assessment (A):	**40 Marks**
Lab Record / Class interaction/ Quiz	15 Marks
Attendance in the Lab	05 Marks
Assignments (Industrial Training (10 hours) / Mini Project (Project Demo + Report))	20 Marks
End Semester External Evaluation (B):	**60 Marks**
Viva Voce on Practical	10 Marks
Practical Record File	10 Marks
Experiments	40 Marks
Total Marks (A+B)	**100 Marks**

Part-A Introduction			
Program: Diploma	**Class: B.C.A.**	**Semester: III**	**Session: 2022-23**
Subject: Computer Applications			
Course Code: S3-51-M	**Course Title: Internet Applications using Java Programming**		
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Minor**		
Pre-requisite (If any):	To study this course, a student must have basic knowledge of Object-Oriented Programming.		
Course Learning Outcomes (CLO)	**After the completion of this course, a successful student will be able to do the following:** 1. Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs. 2. Read and make elementary modifications to Java programs that solve real-world problems. 3. Validate input in a Java program. 4. Design and use basic applet for web page		
Credit value	**Theory – 4 Credits**		
Total Marks	**Max. Marks: 40+60**		**Min. Passing Marks: 35**

B.C.A. III Semester Computer Applications
S3-51-M: Internet Applications using Java Programming
Academic Year: 2022-2023

Part-B: Content of the Course		
No. of Lectures (in hours per week):		**2 Hrs. per week**
Total no. of Lectures:		**60 Hrs.**
Para	**Topics**	**No. of Lectures**
I	**The Java Environment:** History and features ofjava, C++ Vs java,OOPs concept, how java works, the concept of PATH and CLASS PATH, A simple program, its compilation and execution, JAVA Program Structure, Java Virtual Machine concepts, java platform overview, Primitive data types, variables and constants, operators, expression, statement-branching, looping and jumping, labeled statements. **Object Oriented Programming in Java:** Classes, objects and methods: defining a class, adding variables and methods, creating objects, constructor, Instances, field and methods initialization by constructors, Copy constructor, memory allocation and garbage collection in java keywords, access methods Arrays, String and String buffer classes, Wrapper classes, using the JDK tools.	**10**
II	**Inheritance:** Inheritance basics, Super class, Sub-class, Method overloading, abstract classes. **Interfaces:** Defining an interface, implementing & applying interfaces, variables in interfaces, extending interfaces. **Multithreading and Exception Handling:** Basic idea of multithreaded programming; The lifecycle of a thread, Creating thread with the thread class and runnable interface, Thread synchronization, Thread scheduling. **Basic idea of exception handling:** The try, catch and throw, throws, finally.	**14**
III	**Applet programming** : Local and Remote Applets, Applet Vs Application, creating and executing java applets, inserting applets in a web page, java security, passing parameter to applets, Aligning the Display, HTML Tags & Applet Tag, Getting Input from User. **The AWT:** The class hierarchy of window fundamentals; The basic user interface components Label, Button, Check Box, Radio Button, Choice menu, Text area, Scroll list, Scroll bar; Frame; Layout managers-flow layout, Grid layout Border layout, Card layout.	**12**
IV	**The Java Event Handling Model:** Java's event delegation model ignoring the event, Self-contained events, Delegating events, The event class hierarchy, The relationship between interface, methods called, parameters and event source; Adapter classes, Event classes action Event, Adjustment Event, Container	**12**

	Event, Focus Event, Item Event, Event, Mouse Event, Text Event, Window Event. Networking-basics, networking classes and interfaces, using java.net package, TCP/IP and datagram programming.		
V	**Input/ Output:** Exploring Java I/O, Directories, stream classes, The Byte Stream: Input stream, output stream, file input stream, file output stream, print stream, Random access file, the character streams, Buffered reader, buffered writer, print writer, serialization. **JDBC:** JDBC-ODBC bridge, The connectivity model, The driver manager, Navigating the result set object contents, java, sql Package, The JDBC exception classes, Connecting to Remote database.	**12**	

B.C.A. III Semester Computer Applications
S3-51-M: Internet Applications using Java Programming
Academic Year: 2022-2023

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:

Textbooks:

- Schildt java Complete Reference TMH

- Das Rashmikanta Core Java, IE, Vikas

- Bansal Nitin, AjitKuinar,A Simplified approach to Java Programming , KALYAN1

- Naughton&Schildt "The Complete Reference Java 2", Tata McGraw Hill

- Deitel "Java- How to Program:" Pearson Education, Asia

- Horstmann& Cornell "Core Java 2" (Vol I & II) , Sun Microsystems

- lvanBayross "Java 2.0" : BPB publications

- Ivor Horton's "Beginning Java 2, JDK 5 Ed., Wiley India.

- Book published by M.P. Granth Academy , Bhopal

Suggestive digital platform web links :

1. https://www.yoiitube.com/watch?v=CFD9EFcNZTO

2. https://www.youtube.cont/watch?m—7WhnYwoBY24

3. http://www.mphindigranthacademy.org/

Suggested equivalent online courses:

S.No.	Online Course	Duration	Platform
1	Programming in Java https://Youtu.be/IdlfJY90GY	12 weeks	NPTEL
2	The Complete Java Certification Course https://www.udemv.com/course/master-nractical-jaya-development/	Self-paced	Udemy

B.C.A. III Semester Computer Applications
S3-51-M: Internet Applications using Java Programming
Academic Year: 2022-2023

<table>
<tr>
<th colspan="6">Part-D: Assessment and Evaluation</th>
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Internal Assessment: Continuous Comprehensive Evaluation (CCE): **40 Marks**

Shall be based on allotted assignments and Class Test. The division of marks is as follows:

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External Assessment: University Exam **(UE): 60 Marks**
Time: 03:00 Hours

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<tr>
<td colspan="2">A. **Submission of Assignment followed by Presentation**</td>
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<td>**Section A**: 03 Very Short Questions</td>
<td colspan="2">03x02 = 06 Marks</td>
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<td>**Best Two test marks 20 Marks**</td>
<td rowspan="4">**Best two test Marks 40 Marks**</td>
<td rowspan="2">**Section B:** Four Short Questions (200 Words Each)</td>
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<td>Total Internal Assessment (Theory) Marks (A+B)</td>
<td colspan="2">**40 Marks**</td>
<td>Total External Evaluation (Theory) Marks (A+B+ C)</td>
<td colspan="2">**60 Marks**</td>
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Any remark/ Suggestion: Focus of the course/ teaching should be on developing ability of the student in analyzing a problem, building the logic and efficient code for the problem.

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B.C.A. III Semester Computer Applications
S3-51-PM: Java Programming Lab
Academic Year: 2022-2023

Part-A Introduction			
Program: Diploma	**Class:** B.C.A.	**Semester:** III	**Session:** 2022-23
Subject: Computer Applications			
Course Code: S3-51-PM	**Course Title: Java Programming Lab**		
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Minor**		
Pre-requisite (If any):	To study this course, a student must have basic logical and analytical skills.		
Course Learning Outcomes (CLO)	**After the completion of this course, a successful student will be able to do the following:** 1. After the completion of this course, a successful student will be able to do the following: 2. Develop simple applications of java. 3. Implementation and use of conditional statement. 4. Learn to formulate iterative solutions and array processing algorithms for problems. 5. Learn to implement method Overloading and Overriding. 6. Implementation of inheritance and interface in java. **7.** Develop a small applet program using awt.		
Credit value	**Practical- 2 Credits**		
Total Marks	**Max. Marks: 40+60**		**Min. Passing Marks: 35**

Part-B: Content of the Course		
No. of Lab Practical's (in hours per week):	**2 Hrs. per week**	
Total no. of Labs:	**30 Hrs.**	
Suggestive list of Practical's		**No. of Labs.**
(**Using any Text editor:** Notepad/Eclipse/Netbeans/Sublime etc.) 1. Write a program to print numbers in words using Nested if and Switch Case. 2. Write a programs called Pass Fail which prints "PASS" if the int variable "mark" is more than or equal to 50; or prints "FAIL" otherwise 3. Write a program called Odd Even which prints "Odd Number" if the int variable "number" is odd, or "Even Number" otherwise. 4. Write a Program to find sum & average of 10 no. using arrays. 5. Write a program to display reverse of a digit no. using array. 6. Write a program to display grade according to the marks obtained by the student. 7. Find the factorial of number if number is given by user rising command line argument. 8. Write a program to print Fibonacci series. 9. Write a program to display tables from 2 to10. 10. Write a program to take an input from tlser and check given number is prime or not. 11. Write a program to implement method overriding. 12. Write a program to convert given str ing into. Uppercase and lowercase and get the length of string Using array 13. 14. Write a program to overload volume method to find out volume of cube and cuboid. 15. Write a program to design a class using abstract Methods and Classes. 16. Write a program to implement multiple inheritance by using Inter face. 17. Write a program to create a package of your name and use that package in a class 18. Write a program to implement parameterized constructor with default argument.		**30**

	19. Define an exception called "Marks out of Bound" exception that is thrown if the entered marks are greater than 100. 20. Develop a simple real life application to illustrate the use of multithreading. 21. Design an applet that takes three numerical values as input from the user and then displays the largest of those three numbers on the screen	

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:

- Laughton & Sehildt "The Complete Reference Java 2", Tata McGraw Hill
- Java EE 6 for Begirlners, Sharanain Shah, Vaisliali Shah, Slur off Publishers and Distributors.

Reference Books:

- Java EE Project using EJB 3, GPA and struts 2 for beginners, Smah, SPD
- .lava Programming A practical Approach, C Xavier, McGraw Hill
- Java Server faces :A practical Approach for beginners, B M Harwaiii, Eastern Economy Edition (PHI).
- Advanced Java Technology, Savaliya, Dreaintech.

Suggestive digital platform web links :

1. https://www.youtube.com/watch?v=CFD9EFcNZTO
2. https://www.Youtube.com/watch?v=7WhnYwoBY24

Suggested equivalent online courses:

S.No.	Online Course	Duration	Platform
1	Programming in Java https://Youtu.be/IdlfJY90GY	12 weeks	NPTEL
2	The Complete Java Certification Course https://www.udemv.com/course/master-nractical-jaya- development/	Self-paced	Udemy

B.C.A. III Semester Computer Applications
S3-51-PM: Java Programming Lab
Academic Year: 2022-2023

Part-D: Assessment and Evaluation	
Internal Assessment (A):	**40 Marks**
Lab Record / Class interaction/ Quiz	15 Marks
Attendance in the Lab	05 Marks
Assignments (Industrial Training (10 hours) / Mini Project (Project Demo + Report))	20 Marks
End Semester External Evaluation (B):	**60 Marks**
Viva Voce on Practical	10 Marks
Practical Record File	10 Marks
Experiments	40 Marks
Total Marks (A+B)	**100 Marks**

Part-A Introduction

Program: Diploma	Class: B.C.A.		Semester: III	Session:2022-23

Subject: Computer Applications				

Course Code: S3-51-O-A	**Course Title: E-Commerce**
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Open Elective**
Pre-requisite (If any):	Open for All
Course Learning Outcomes (CLO)	**On the completion of this course student will be able –** 1. To learn the fundamentals of E-Commerce and its process. 2. To understand the role of E- commerce in the present scenario along with the concepts of security and its applications. 3. To gain knowledge of e-commerce business needs and resources and match to technology considering human factors and budget constraints. 4. To apply knowledge of changing technology on traditional business models and strategy. **5.** To have skills to communicate effectively and ethically using electronic communication.
Credit value	**Theory – 4 Credits**
Total Marks	**Max. Marks: 40+60**

Total Marks	**Max. Marks: 40+60**	**Min. Passing Marks: 35**

B.C.A. III Semester Computer Applications
S3-51-O-A: E-Commerce
Academic Year: 2022-2023

Part-B: Content of the Course		
No. of Lectures (in hours per week):		2 Hrs. per week
Total no. of Lectures:		60 Hrs.
Para	**Topics**	**No. of Lectures**
I	**Introduction:** Brief history of e-commerce ,Types , Advantages & Disadvantages of e-commerce , Elements of e-commerce , Principles of e-commerce , Messaging and Information distribution , Messaging and information distribution , Common service infrastructure , other key support layers.	09
II	**EDI to e-commerce:** EDI - Origin , System approach and communication approach , Migration to open EDI-Approach , Benefits , Mechanics , E-com with WWW/Internet. E-Government- Concepts, Applications of G2C, G2B, G2G.	09
III	**Electronic communication**: PC and networking , Network topologies and communication media , E-mail , OSI and TCP/IP Models , LAN, WAN, MAN Internetworking — Bridges and gateways , Internet Vs Online services, Open vs. Closed Architecture , Controlled contained Vs Uncontrolled contained , Metered Pricing Vs Flat pricing , Innovation Vs Control.	15
IV	**WWW & Electronic Payment System:** Applications - what is web , Why is the Web such a hit, The Web and E-Com, Concepts & Technology -Key concepts, Web Software development Tools. Electronic payment system-Overview , Electronic or digital cash , Electronic Checks , Online credit card based system , other Engineering financial instruments ,Consumer legal and Business issues	12
V	**Security and Application:** Need of computer security, Specific intruder approaches, Security strategies, Cryptography, Public key encryption, Private key encryption, Digital signatures Advertising on the internet: Marketing, Creating a website. Electronic publishing issues, EP architecture, EP tools, Web page EP-Baseline issues, Application tools and publishing on the internet.	15

Part-C: Learning Resources
Text Books, Reference Books, Other Resources
Suggested Readings: • ”Electronic Commerce” By Ravi Kalakota and Andrew B. Whinston.   • ”Web Commerce Technologies Handbok”By Daniel Minoli& Emma Minoli   • ”E-Commerce ” By Dr.Varinder Bhatia   • “Promise OfE-Governance” By M P Gupta   • Book published by M.P. Granth Academy , Bhopal   **Suggestive digital platform web links :**   1. https://onlinecourses.nptel.ac.in/nocl9inq54/preview   2. https://onlinecourse.swayain2.ac.in/cecl9cm01/preview   3. https://www.couiseia.org/lecture/innovative-entrepreneur/e-commeice-the-internet-as-a-selling-platform-DYSNa   4. https://www.mooc-list.coin/tags/e-commerce-market   5. https://on1inecourses.swayam2.ac.in/nou21cm14/preview   6. http://www.mphindigranthacademy.org/

B.C.A. III Semester Computer Applications
S3-51-O-A: E-Commerce
Academic Year: 2022-2023

Part-D: Assessment and Evaluation				
Internal Assessment: Continuous Comprehensive Evaluation (CCE): **40 Marks** Shall be based on allotted assignments and Class Test. The division of marks is as follows:			**External Assessment:** University Exam **(UE): 60 Marks** **Time: 03:00** Hours	
A. **Submission of Assignment followed by Presentation**			**Section A**: 03 Very Short Questions	03x02 = 06 Marks
B. **Class Test**	**Best Two test marks 20 Marks**	**Best two test Marks 40 Marks**	**Section B:** Four Short Questions (200 Words Each)	04x08 = 32 Marks
Test I (Written Test)	20 Marks			
Test I (Written Test)	20 Marks		**Section C:** Two Long Questions (500 Words Each)	02x11 = 22 Marks
Test III (Quiz/ Seminar/ Assignment)	20 Marks			
Total Internal Assessment (Theory) Marks (A+B)	**40 Marks**		Total External Evaluation (Theory) Marks (A+B+ C)	**60 Marks**
Any remark/ Suggestion: Focus of the course/ teaching should be on developing ability of the student in analyzing a problem, building the logic and efficient code for the problem.				

B.C.A. III Semester Computer Applications
S3-51-O-B: Organization Behaviour
Academic Year: 2022-2023

Part-A Introduction			
Program: Diploma	**Class: B.C.A.**	**Semester: III**	**Session:2022-23**
Subject: Computer Applications			
Course Code: S3-51-O-B	**Course Title: Organization Behaviour**		
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Open Elective**		
Pre-requisite (If any):	Not Required		
Course Learning Outcomes (CLO)	**After the completion of this course, a student shall be able to do the following:** 1. Understand the effect of interpersonal behaviour in an organizational work-life. 2. Understand perspective in diverse cultural environment. **3.** Understand the principles of organizational human behaviuor with relevance to the Indian business context.		
Credit value	**Theory – 4 Credits**		
Total Marks	**Max. Marks: 40+60**		**Min. Passing Marks: 35**

B.C.A. III Semester Computer Applications
S3-51-O-B: Organization Behaviour
Academic Year: 2022-2023

Part-B: Content of the Course		
No. of Lectures (in hours per week):	2 Hrs. per week	
Total no. of Lectures:	60 Hrs.	
Para	**Topics**	**No. of Lectures**
I	Concept of Organizational Behavior, Evolution of OB Contributing Disciplines to Organizational Behavior; Framework of OB.	**12**
II	Challenges and opportunities in the field of OB. Goals & its determinants Organization Behaviour models.	**12**
III	Individual Behaviour, Personality, Perception, Social Perception and Impression Management, Attitude-characteristics, components, formation and measurement, Values, Learning and Re-enforcement.	**12**
IV	Motivation:- meaning types and important elements Theories of motivation, Attitudes and values: Concept, factors, significance and theories.	**12**
V	Leadership- Concepts and Theories of Leadership, Qualities of a good Leader. Group Dynamics- group formation, Nature of groups, Types of Group, Group Member Resources, Reasons of joining groups, Functions of group within organization.	**12**

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:

Textbooks:

- Udai Pareek, Understanding Organization Behaviour, 3rd Ed., Oxford Unversity press, 2011 Robbins S.P., Organizational Behaviour, 7th ED., New Delhi, PHI, 1996
- Huse, FE and Cunnings T G, Organization Development and Change, 3rd ed., New York. West, 1985
- Shekcharam Uma, OrganizationalBehaviour, Text & cases, New Delhi THM, 1989.
- Singh Dalip, Emotional Intelligence at work, Response Books, Sage Publication, Delhi 2001.
- Book published by M.P. Granth Academy, Bhopal

Reference Book:

- Luthans Fred., "Organizational Behaviour", McGraw Hill.
- Hellriegel, Slocum and Woodman, Organizational Behavior, South-Western, Thomson Learning, 9th edition, 200 I.
- Behavior in Organizations, Jerald Greenberg, 8ih ed, Pearson Education.
- Arnold, John, Robertson, Ivan t. and Cooper, Cary, I., "Work psychology: understanding human behavior in the workplace", Macmillan India Ltd., Delhi.
- Dwivedi, R. S., "Human relations and Organizational Behaviour: a global perspective", Macmillan India Ltd., Delhi.

Suggestive digital platform web links :

1. https://www.coursera.org/courses?query-economics
2. https://www.mooc-list.com/tags/economics
3. https://www.coursera.org/learn
4. https://ocw.mit.edu/courses
5. https://nptel.ac.in/courses/macr_oeconomics
6. https://nptel.ac.in/courses/ManagerialEconomics
7. http://www.mphindigranthacademy.org/

B.C.A. III Semester Computer Applications
S3-51-O-B: Organization Behaviour
Academic Year: 2022-2023

Part-D: Assessment and Evaluation				
Internal Assessment: Continuous Comprehensive Evaluation (CCE): **40 Marks** Shall be based on allotted assignments and Class Test. The division of marks is as follows:			**External Assessment:** University Exam **(UE): 60 Marks** **Time: 03:00** Hours	
C. **Submission of Assignment followed by Presentation**			**Section A**: 03 Very Short Questions	03x02 = 06 Marks
D. **Class Test**	**Best Two test marks 20 Marks**	**Best two test Marks 40 Marks**	**Section B:** Four Short Questions (200 Words Each)	04x08 = 32 Marks
Test I (Written Test)	20 Marks			
Test I (Written Test)	20 Marks		**Section C:** Two Long Questions (500 Words Each)	02x11 = 22 Marks
Test III (Quiz/ Seminar/ Assignment)	20 Marks			
Total Internal Assessment (Theory) Marks (A+B)	**40 Marks**		Total External Evaluation (Theory) Marks (A+B+ C)	**60 Marks**
Any remark/ Suggestion: Focus of the course/ teaching should be on developing ability of the student in analyzing a problem, building the logic and efficient code for the problem.				

B.Sc. III / B.C.A. III Semester
Computer Science / Computer Applications
S3-06/51-V: Web Designing -I
Academic Year: 2022-2023

Part-A Introduction			
Program: Diploma	**Class: B.Sc./B.C.A.**	**Semester: III**	**Session:2022-23**
Course Code: S3-06/51-V	**Course Title: Web Deigning - I**		
Course Type (Core Course/ Elective/ Generic Elective/ Vocational...):	**Vocational**		
Pre-requisite (If any):	Open for All		
Course Learning Outcomes (CLO)	**After studying this Course the student will be able to –** • Understanding of Internet & its terminology • Code a handful of useful HTML & CSS examples. • Build semantic, HTML & CSS web page. • Add Interactivity to a Web Page.		
Job Role	Web Designer / Front End Developer/ Creative Ad Designer		
Job Description	Web designers develop functional and appealing web pages, websites, web applications, online advertisements for individuals, businesses and government agencies to establish their online presence. They use knowledge of computer programming and graphic design to create websites that meet client needs. **Career Opportunities** – Typical employers of web designers are – • Software companies • IT consultancies • Specialist web design companies • Large corporate organizations • Any organization that uses computer systems • Self-employment/freelance work is often possible for individuals with appropriate experience. Vacancies are advertised online, by career services and by recruitment agencies.		
Credit value	**Theory – 4 Credits**		
Total Marks	**Max. Marks: 40+60**		**Min. Passing Marks: 35**

Part-B: Content of the Course		
No. of Lectures (in hours per week):		**2 Hrs. per week**
Total no. of Lectures:		**60 Hrs.**
Unit	**Topics**	**No. of Lectures**
I	Internet: Introduction to Internet, Intranet & Extranet, History of Internet, Advantages & Disadvantages of Internet, Application of Internet. WWW, URL, Domain Name, Basic concepts, Internet Addressing, Web Server, Web Browser. Website, Web page overview, Home Page, Elements of a web page. Types of Sites: personal sites, small business sites, large business sites, online business sites, Educational institution sites, Government sites. Software for Web Designing - Notepad/Notepad++, Dreamweaver, Blue Griffon, Net beans, Sea Monkey, Word press, Sublime.	**12**

II	Introduction to HTML: HTML Tags and Attributes, HTML Basic Tags, Formatting Tags: <h1>….<h6>, <p>,<tt>,<pre>,
	, <hr>, , <b>,<i>,<u>,<strong>,<em>, HTML Color Coding, Div and Span Tags for Grouping. Lists: Unordered Lists, Ordered Lists, Definition list. Images: Image and Image Mapping Hyperlink: URL - Uniform Resource Locator, URL Encoding. Table: <table>, <th>, <tr>, <td>, <caption>, <thead>, <tbody>, <tfoot>, <colgroup>, <col>. Attributes Using Iframe as the Target. Form: <input>, <textarea>, <button>, <select>, <label> Headers: Title, Base, Link, Styles, Script HTML Meta Tag, XHTML, HTML Deprecated Tags & Attributes.
		12

III	CSS: Introduction, Features and benefits of CSS, CSS Syntax, Types of CSS: Inline, Internal and External Style Sheet using <link>, Multiple Style Sheets, Value Lengths and Percentages. Selectors: ID Selectors, Class Selectors, Grouping Selectors, Universal Selector, Descendant / Child Selectors, Attribute Selectors, CSS – Pseudo Classes.	**12**

IV	Color Background Cursor: background-image, background-repeat, background position, CSS Cursor Text Fonts: color, background-color, text-decoration, text-align, vertical-align, text-indent, text-transform, white-space, letter-spacing, word-spacing, line-height, font-family, font-size, font-style, font-variant, font-weight.	**12**
V	Lists Tables: list-style-type, list-style-position, list-style-image, list-style, CSS Tables (border, width & height, text-align, vertical-align, padding, color) Box Model: Borders & Outline, Margin & Padding, Height and width, CSS Dimensions. Display Positioning: CSS Visibility, CSS Display, CSS Scrollbars, CSS Positioning (Static Positioning, Fixed Positioning, Relative Positioning, Absolute Positioning), CSS Layers with Z-Index. Floats: The float Property, The clear Property, The clearfix Hack.	**12**

B.Sc. III / B.C.A. III Semester
Computer Science / Computer Applications
S3-06/51-V: Web Designing -I
Academic Year: 2022-2023

Part-C: Learning Resources
Text Books, Reference Books, Other Resources

Suggested Readings:
- Jon Duckett, HTML And CSS: Design And Build Websites, Wiley
- Jon Duckett, JavaScript And Jquery: Interactive Front-End Web Development, Wiley
- Jennifer Niederst Robbins, Learning Web Design: A Beginner's Guide To HTML, CSS, JavaScript, And Web Graphics, O'reilly.
- Steven M. Schafer, Html, XHTML, And CSS Bible, Wiley
- Felke-Morris, Basics Of Web Design: Html5 & Css3, 5th Edition, Pearson Education, 2019.
- Felke-Morris, Web Development & Design Foundations With Html5, 10th Edition, Addison Wesley, 2020.
- Ian Pouncey, Richard York, Beginning CSS: Cascading Style Sheets For Web Design, Wiley India.
- Thomas A Powell, The Complete Reference To Html
- Lee Anne Philips, Using Html, PHI
- C. Xavier, World Wide Web Design With Html,
- Xavier C, Web Technology And Design, New Age International
- Laura Lemay, Mastering Html, CSS & JavaScript Web Publishing
- Dt Editorial Services, Html 5 Black Book - Covers CSS 3, JavaScript, XML, XHTML, AJAX, PHP and Jquery, DreamTech Press Publication

Suggestive digital platform web links :
- https://www.w3schools.com/
- https://spoken-tutorial.org/
- https://www.doc-developpement-durable.org/file/Projets-informatiques/cours-&-manuels
- http://www.nematrian.com/Pages/HTMLCSSJSCombined.pdf (PDF: 514 pages)
- https://www.daoudisamir.com/references/vs ebooks/html5 css3.pdf (PDF: 681 pages)

Suggested equivalent online courses:
- https://nptel.ac.in/courses/106/105/106105084/ (NPTEL Course: Internet Technology - Part of the Course)
- https://onlinecourses.swayam2.ac.in/aic20 sp11/preview (HTML and CSS)
- https://www.coursera.org/learn/html-css-javascript-for-web-developers#syllabus (HTML, CSS, and JavaScript for Web Developers)
- https://www.classcentral.com/course/html-css-javascript-for-web-developers-4270 (HTML, CSS, and JavaScript for Web Developers)
- https://www.classcentral.com/course/duke-programming-web-4256
- https://www.coursera.org/learn/duke-programming-web (Programming Foundations withJavaScript, HTML and CSS)

Part-D: Assessment and Evaluation				
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