BU-COMMUNITY COLLEGE CONSULTANCY CENTRE

REVISED SYLLABUS – 2021-22 FOR DIPLOMA IN OFFICE AUTOMATION



BHARATHIAR UNIVERSITY COIMBATORE-641046

BHARATHIAR UNIVERSITY, COIMBATORE.

DIPLOMA IN OFFICE AUTOMATION (Community College) (for the candidates admitted from the academic year 2021-22 onwards)

Minimum qualification for admission to Diploma Course in Office Automation is a pass in Standard X

SCHEME OF EXAMINATIONS

S.No	Title of the Course	Credits	Maximum Marks
1	Fundamentals Of Computers	4	100
2	Pc Packages	4	100
3	Internet & Html	4	100
4	Database Management System	4	100
5	Pc Packages Lab	4	100
6	Html Lab	4	100
7	Database Management Lab	4	100
8	Project	4	100
	Total	32	800

Question paper Pattern: Theory

Section A: $(10 \times 2=20 \text{ Marks})$ Answer ALL the questions Section B: $(5 \times 6 = 30 \text{ Marks})$ Answer ALL the questions either (a) or (b) Section C: $(5 \times 10 = 50)$ Answer ALL the questions either (a) or (b)

Duration of examinations for all papers is three hours. *Minimum Pass Mark: 40 Marks

PAPER I

FUNDAMENTALS OF COMPUTERS

Unit:1Introduction to ComputerIntroductiontoComputer:-Definition-Characteristics-GenerationofCapabilitiesandLimitations.Introduction toOperatingBootingFiles.BasicComponentsofaBootingFiles.BasicComponentsofaInput/outputfunctionsandcharacteristics.MemoryIntroduction-Classifications-VolatileMemoryandNon-Volatile -FlashMemory-RAM-EPROM-PROM-EEPROMothertypes of memory. </th
Capabilities and Limitations. Introduction to Operating System. Concept of Bios- Booting Files. Basic Components of a Computer System-Control Unit- ALU- Input/output functions and characteristics. Memory Introduction- Classifications- Volatile Memory and Non- Volatile - Flash Memory- ROM- RAM- EPROM- PROM- EEPROM other types of memory. Unit:2 Input- Output and Storage Units Input- Output and storage Units:-Computer Keyboard- Pointing Devices: Mouse- Trackball-Touch Panel- and Joystick- Light Pen- Scanners- Various types of Monitors- Touch-sensitive screens- Optical Recognition System- Pen based systems- Digitizers- MICR- OCR- OMR- Barcode Reader- digital camera. Hard Copy Devices:- Impact and Non- Impact Printers- Daisy Wheel- Dot Matrix- Line Printer-Chain Printer- Comb Printers- Non Impact Printers- DeskJet- Laser Printer- Thermal Transfer Printer- Barcode
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Printers- Non Impact Printers- DeskJet- Laser Printer- Thermal Transfer Printer- Barcode
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Unit:3 High Level Language and Low Level Language
High Level Language and Low Level Language- Software and its different types-
System Software- Application software. Hardware - Firmware Compiler- Interpreter
and Assembler. File Allocation Table (FAT - FAT 32 & NTFS). Introduction to algorithm
and Flow chart: - Representation of an algorithm- flowchart symbols and levels of flow
chart- rules- advantage and limitations of flowchart and pseudo code.
Unit:4 Testing and Debugging
Testing and Debugging:-Definition of testing and debugging - types of program errors-
testing of programs- debugging a program for syntax and logical errors- difference
between testing and debugging.
Unit:5 Booting process details of DOS and Windows
Booting process details of Dos and Windows:- DOS system files - Internal and External
Commands - Difference between External and Internal Commands. Internal
Commands:- MD-CD- RD- COPY CON-TYPE - DATE & TIME- VOLUME
VERSION- REN- PROMPT- CLS-DIR/P/W-COPY - DEL Etc. External commands :-
FORMAT - DISKCOPY- DISKCOMP-XCOPY- CHKDISK- SCANDISK- HELP-
DEBUG- PRINT etc.
Text Book(s)
1 Ata Elahi, "Computer Systems. Digital Design, Fundamentals of Computer
1 Ata Elahi, "Computer Systems. Digital Design, Fundamentals of Computer Architecture and Assembly Language", Springer, 2018.

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3	B. B. Agarwal, S. P. Tayal, M. Gupta, "Software Engineering and Testing: An
	Introduction (Computer Science)", Jones & Bartlett Publishers, 2009.
4	Silberschatz, Galvin Gagne, "Operating System", Willey, 2008.
	·
Refer	ence Books
Refer 1	ence Books Raja Raman, "Introduction to Digital Computer Design", PHI Publisher, 2007

PAPER II

PC PACKAGES

Unit:1	Introduction to MS-Office
Introduction to N	MS-Office – Applications of computer- Types of Computer – Micro
Computer – Mini	Computer – Main Computer – Super Computer – Peripherals - Memory
-	y – Secondary memory CPU – Components of CPU - Mother board,
•	ROM, Processor, SMPS & Connecting wire - Graphics Card, Sound
	urd – Modem - Input /Output Devices Keyboard, Mouse, Scanner, Digital
	Pen drive, Monitor, Printer, Plotter – Connecting port – Serial, parallel
•	erating System – Single User – Multi User – Software – System Software
	tware – Internet – Intranet.
TT	
Unit:2	Introduction to MS-Word
Introduction to M	IS-Word – Shortcut Bars Menu bar – Task bar – Status bar– Toolbar –
Manipulating Imag	ges – Graphic elements – Charts – Collaborating on documents –
Securing a docum	ent – Hyper Link – Shortcut keys - Document creation – Paragraph
formatting – Head	er and Footer – Tables – Mail Merge - Managing Document Security,
Comments and Tra	acked changes - Spell check - File Operations - Cut, Copy and Paste,
	Dynamic Data exchange - Templates - Formula - Undo - Redo - Find
and Replace - Au	
Unit:3	Introduction to MS – Excel
Introduction to 1	MS – Excel – Work sheet – Data types – Wizards – Insert – delete –
	lumns and Rows – Views of Worksheets – Hiding – Usage of Formula
and Calculation -	Different Charts - Functions - Tables and Formatting - Query - Macros
- Simulations - 1	Formatting Spreadsheets - Sorting - Security - Calculator - Usage of
Formula – Forma	atting text and Cells - Using wizards - File Management - Spell check
	ing - Working with dates and times - Sparklines - Troubleshooting
worksheets.	
Unit:4	Introduction to Power Point
	Power Point – Creating a presentation – Formatting a presentation –
U	b the presentation – Reusability and Templates of the presentation –
	f Slides – Files in power point presentation – Printing Handouts – Tables
	Lists – Adding Graphics – Sounds and Movies of a Slide – Objects –
	– Animation – Multimedia in PPT – Slide show – Transition and Timings
•	lipart and Pictures – File management – Power point presentation on
mobiles and Desl	ktops – Mobile Apps for PPT.
Unit:5	Introduction to MS-Access
	MS-Access – Database Development – Creating Tables – Forms creation
	with Queries – Reports – my SQL Vs MS –Access – Links/ Connectivity
	ce a Query – Tables – Features of MS – Access – Objects – Wizards –
	$\frac{1}{1000} = 10000 = 100000 = 10000 = 1000 = 10000 = 1000000 = 1000000 = 100000000$

Importing and Exporting data – Data duplication – Query manipulation – Macros – DBMS
Vs Access. File manipulation- Applications.

Text	Book(s)
1	Lisa A. Bucki John Walkenbach Faithe Wempen Michael Alexander Dick
	Kusleika, 'Microsoft office 2013 BIBLE', John Wiley & Sons publications.
2	V. Raja Raman, 'Fundamentals of computers' Prentice- Hall of India, 2014.
3	Anita Goel, 'Computer Fundamentals', Pearson publications, 2010
4	P. K. Sinha, 'Computer Fundamentals', Publisher: BPB Publications.2004.
Refere	ence Books
1	R. Gabriel Gurley, 'A Conceptual Guide to OpenOffice.org 3', Create Space
	Independent Publishing Platform, 2008
2	Alexis Leon, Mathews Leon, and Leena Leon, Vijay Nicole 'Introduction to
	Information Technology', Imprints Pvt. Ltd., 2013.
3	Greg jarboe, Hollis Thomases, Mari Smith, Chris Treadaway 'MS Office XP
	complete', BPB publication, 2001.

PAPER III

INTERNET AND HTML

Unit:	1 Internet and World Wide Web
Intern	et and World Wide Web: The Internet –How the Internet Began – TCP/IP – IP
Addre	ssing - Servers and Clients - Intranets - World Wide Web - Pages - Home Page -
Web E	Browsers and Web Servers – Hyperlinks – URLs – Email.
Unit:	
	I: Introduction – Services – How does it Works – How to make E-mail ID –
	tages and Limitations of E-mail - Receiving and Sending E-mail Messages - Search
Engine	s – Web Directory & Web Search Engine.
Unit:	
	uction to HTML: Introduction – HTML Editor – Creating Basic HTML
	ments - The Structure of HTML Program - Enhancing the Web Page - Working with
Lists –	- Unordered, Ordered, Definition Lists.
Unit:	
• -	dinking Websites: Hyperlinking – Types of Hyperlink – Linking with Images and
Graph	ics – Linking with Specific Mail Address.
TT .•4	
Unit:	8
	ing Frames and Tables: Introduction – The Tag – Create Tables – Using the
	lor Attribute – Using the Colspan and Rowspan Attributes – Using the Width and
Border	r Attributes – Using the Cell spacing and Cell padding Attributes.
Tout	Book(s)
1	Dinesh Maidasani, Learning computer Fundamentals, MS Office and Internet & Web Technology, Eircycell Media, Third Edition, 2016
	Web Technology, Firewall Media, Third Edition 2016.
Dofor	ence Books
Kelen	
1	Ion Duckett Beginning HTML XHTML CSS and JavaScript 2nd Edition
1	Jon Duckett, Beginning HTML, XHTML, CSS, and JavaScript, 2 nd Edition,
1 2	Jon Duckett, Beginning HTML, XHTML, CSS, and JavaScript, 2 nd Edition, 2011. James H Pence, How to do everything with HTML, McGraw-Hill Education, 2001.

PAPER IV

DATABASE MANAGEMENT SYSTEM

Unit:1	Database
Database: Intro	duction to database, relational data model, DBMS architecture, data
independence, D	OBA, database users, end users, front end tools
Unit:2	E-R Modeling
0	Entity types, entity set, attribute and key, relationships, relation types, E- abase design using ER diagrams
Unit:3	Relational Data Model
	a Model : Relational model concepts, relational constraints, primary and malization: 1NF, 2NF, 3NF
T 1	Structure d. Outour, Longue de COL
Unit:4	Structured Query Language SQL
	ry Language SQL – Features of SQL – Data types in SQL - CREATE
	und, Constraints – NULL, DEFAULT, CHECK, PRIMARY KEY,
	ntial Integrity – INSERT, UPDATE and DELETE command - SELECT WHERE, ORDER BY clause - Aggregate and scalar functions in SELECT
statements - Nes	sted queries, sub queries Statement.
Unit:5	Views
	iction commands – integrity constraints - CREATE INDEX, CREATE
	X, DROP INDEX - authorizations on data and granting & revoking of
	ions, procedure - cursor and trigger - Database connectivity using JDBC/
ODBČ.	
Text Book(s)	
1 Elmasri N	avathe, Fundamentals of Database Systems - Pearson Publications, Sixth
Edition, 2	011.
· · · · · · · · · · · · · · · · · · ·	
Reference Book	XS
1 P. Rob, C	. Coronel, Database System Concepts by, Cengage Learning India, 2008
	ri,S. Navathe Fundamentals of Database Systems, Pearson Education,
Fifth Editi	on, 2007

PAPER V

PC PACKAGES LAB

Sample Programs

	MS WORD
1	Type the paragraph and do following. There are different types of computer systems nowadays for different purpose according to the user needs. However we can classify them into different groups based on different aspects. We can find four different type of computers based on size. These are large computers that are most powerful. They can complete tasks very soon and are optimized to complete given tasks quickly. Mainframe Computers. These are the largest computers and can support hundreds of users simultaneously. These are powerful computers and optimized to run maximum number of applications at one time. These are medium sized computers –smaller than mainframe but much larger than personal computers. They can be the best solution for medium scale organizations. Micro Computers. Micro computers are the smallest when size is concerned. They range from Desktop, Laptop up to the palm top and even smaller ones. Because micro computers are developed to support single person, they are often called personal computers (PCs). a. Divide into 4 paragraphs for the above text and justify Alignment. b. Make Drop Cap the first letter of the second paragraph. c. Make 1.5" line spacing for third paragraph.
	d. Change font size on 17 points for the last paragraph.
	e. Apply numbers for the last two sentences for 4th paragraph.
2	f. Set up the page layout on Landscape orientation and set up 1.50" and Right 1.05". Preparing a Govt. Order / Official Letter / Business Letter / Circular Letter Covering formatting commands - font size and styles - bold, underline, upper case, lower case, superscript, indenting paragraphs, spacing between lines and characters, tab settings
3	etc. Creating and using styles and templates
5	a. To create a style and apply that style in a documentb. To create a template for the styles created and assemble the styles for the template.
4	 Creating and editing the table a. To create a table using table menu b. To create a monthly calendar using cell editing operations like inserting, joining, deleting, splitting and merging cells c. To create a simple statement for math calculations viz. totaling the column.
5	Creating numbered lists and bulleted listsa. To create numbered list with different formats (with numbers, alphabets, roman letters)b. To create a bulleted list with different bullet characters.
6	Printing envelopes and mail merge.a. To print envelopes with from addresses and to addressesb. To use mail merge facility for sending a circular letter to many personsc. To use mail merge facility for printing mailing labels.
7	Using the special features of word a. To find and replace the text

	b. To spell check and correct.
	c. To generate table of contents for a document
	d. To prepare index for a document.
	d. To prepare index for a document.
	MC EXCEL
1	MS – EXCEL
1	Using formulas and functions: To prepare a Worksheet showing the monthly sales of a company in different branch offices (Showing Total Sales, Average Sales).
	Prepare a Statement for preparing Result of 10 students in 5 subjects (using formula
	to get Distinction, I Class, II Class and Fail under Result column against each
	student).
2	Operating on the sheets: Finding, deleting and adding records, formatting columns,
	row height, merging, splitting columns etc. Connecting the Worksheets and enter the
	data.
3	Creating a Chart: To create a chart for comparing the monthly sales of a company in
	different branch offices.
4	Sorting Data, Filtering Data and creation of Pivot tables.
5	Create any table in the Spreadsheet and do the following
	a. Create the formula to make some calculation
	b. Make the sorting
	c. Apply the borders and shadow
	d. Create a hyperlink
	e. Draw the chart of given information
6	Create a student mark statement with chart for each exam report in an academic year.
7	Create a file and do the following
	a. Formatting cells
	b. Copy the formatting cells along with data
	c. Create a formula and copy the formula over a range of cells
	d. Use the functions in related fields
	MS – ACCESS
1	Creating Student's address Database and then list the data on the screen in
	alphabetical order.
2	Performing various queries.
3	Generating the Report from Database
4	Create a table and do the following operation
	a. Insert
	b. Delete
	c. Update
	d. Display
5	Create an Employee details by using MS- Access
	MS – POWER POINT
1	Creating a new Presentation based on a template – using Auto content wizard, design
	template and Plain blank presentation.
2	Creating a Presentation with Slide Transition – Automatic and Manual with different
	effects.
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3	Creating a Presentation applying Custom Animation effects – Applying multiple effects to the same object and changing to a different effect and removing effects.
4	Creating and Printing handouts
5	Create a PowerPoint presentation and do the following
	a. Layout of opening screen in Power point
	b. Make a hyper link
	c. Insert text and pictures into a blank slide
	d. Design and apply a slide transition effects on PPT
6	Set animation to text and picture in a Slide show
7	Set the sound, order and timing for animation in PPT
8	Create a table and chart using MS-PowerPoint
9	How can you share the slideshow in online by using any application
10	Create a slide show presentation for any event in the university by using various tools
	in MS Power point.

PAPER VI

HTML LAB

List of Programs

1	Develop a HTML document which displays you name as heading and displays any
	four of your friends. Each of your friend's names must appear as hot text. When you
	click your friend's name, it must open another HTML document, which tells about
	your friend.
2	Write names of several countries in a paragraph and store it as an HTML document,
	world.html. Each country name must be a hot text. When you click India (for
	example), it must open india.html and it should provide a brief introduction about
	India.
3	Design a HTML document describing you. Assign a suitable background design and
	background color and a text color.
4	Write a HTML document to print class Time Table.
5	Web Pages using standard HTML tags like, HEAD, TITLE, BODY
6	Working with various attributes of standard HTML elements
7	Develop a Complete Web Page using Frames and Framesets which gives the
	Information about a Hospital using HTML.
8	Write a HTML document to print your Bio-Data in the following format: NAME
	Religion Community Street Town District State Address PIN Code Office Phone
	Residence Mobile Educational Qualification Degree University/Institute Month&
	year Grade / Mark
9	Develop a HTML document to display a Registration Form for an inter-collegiate
9	Develop a HTML document to display a Registration Form for an inter-collegiate function.
	function.
9 10	
10	function. Develop a HTML document to design Alumni Registration form of your college.
	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page
10	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot
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10	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked.
10	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style
10 11 12	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages
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10 11 12	 function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the
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10 11 12 13	 function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the list, and add CSS to customize the properties of the font of the capital
10 11 12	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the list, and add CSS to customize the properties of the font of the capital Design a html webpage for display your college course details with rowspan and
10 11 12 13	 function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the list, and add CSS to customize the properties of the font of the capital
10 11 12 13 14	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the list, and add CSS to customize the properties of the font of the capital Design a html webpage for display your college course details with rowspan and colspan attribute using table
10 11 12 13	function. Develop a HTML document to design Alumni Registration form of your college. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. Create a web page with the following. a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages Write an HTML page that contains a selection box with a list of 5 countries In the above page when the user selects a country, its capital should be printed next to the list, and add CSS to customize the properties of the font of the capital Design a html webpage for display your college course details with rowspan and

PAPER VII

DATABASE MANAGEMENT LAB

List of Programs

1	Consider the INSURANCE DATABASE given below. The primary keys are made
	bold and the data types are specified.
	PERSON(driver_id:string , name:string , address:string)
	CAR(regno:string , model:string , year:int)
	ACCIDENT(report_number: int , accd_date: date , location: string)
	OWNS(driver_id:string , regno:string)
	PARTICIPATED(driver_id:string , regno:string , report_number:int ,
	damage_amount:int)
	1)Create the above tables by properly specifying the primary keys and foreign keys.
	2)Enter at least five tuples for each relation.
	3)Demonstrate how you
	a.Update the damage amount for the car with specific regno in the accident with
	report number 12 to 25000.
	b.Add a new accident to the database.
	4)Find the total number of people who owned cars that were involved in accidents in
	the year 2008.
	5)Find the number of accidents in which cars belonging to a specific model were
	involved.
2	Consider the following relations for a ORDER PROCESSING DATABASE
	application in a company.
	CUSTOMER(custno:int , cname:string , city:string)
	ORDER(orderno:int , odate:date , custno:int , ord_amt:int)
	ORDER_ITEM(orderno:int , itemno:int , quantity:int)
	ITEM(itemno:int , unitprice:int)
	SHIPMENT(orderno:int , warehouseno:int , ship_date:date)
	SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string)
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys.
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation.
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer.
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city.
	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method
2	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contains this particular item.
3	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contains this particular item.
3	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contains this particular item. Consider the following database of STUDENT ENROLLMENT in courses and books adopted for that course.
3	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contains this particular item. Consider the following database of STUDENT ENROLLMENT in courses and books adopted for that course. STUDENT(regno:string , name:string , major:string , bdate:date)
3	 SHIPMENT(orderno:int , warehouseno:int , ship_date:date) WAREHOUSE(warehouseno:int , city:string) 1)Create the above tables by properly specifying the primary keys and foreign keys. 2)Enter at least five tuples for each relation. 3)Produce a listing: custname , No_of_orders , Avg_order_amount , where the middle column is the total number of orders by the customer and the last column is the average order amount for that customer. 4)List the orderno for orders that were shipped from all the warehouses that the company has in a specific city. 5)Demonstrate the deletion of an item from the ITEM table and demonstrate a method of handling the rows in the ORDER_ITEM table that contains this particular item. Consider the following database of STUDENT ENROLLMENT in courses and books adopted for that course.

1	
	BOOK_ADOPTION(courseno:int , sem:int , book_isbn:int)
	TEXT(book_isbn:int , book_title:string , publisher:string , author:string)
	1)Create the above tables by properly specifying the primary keys and foreign keys.
	2)Enter atleast five tuples for each relation.
	3)Demonstrate how you add a new text book to the database and make this book to
	be adopted by some department.
	4)Produce a list of text books (includes courseno, book_isbn, book_title) in the
	alphabetical order for courses offered by the 'CS' department that use
	more than two books.
	5) List any department that has all its books published by a specific publisher.
4	The following are maintained by a BOOK DEALER .
	AUTHOR(author_id:int , name:string , city:string , country:string)
	PUBLISHER(publisher_id:int , name:string , city:string , country:string)
	CATALOG(book_id:int , title:string , author_id:int , publisher_id:int ,
	category_id:int, year:int, price:int)
	CATEGORY(category_id:int , description:string)
	ORDER_DETAILS(order_no:int , book_id:int , quantity:int)
	1)Create the above tables by properly specifying the primary keys and foreign keys.
	2)Enter at least five tuples for each relation.
	3)Give the details of the authors who have 2 or more books in the catalog and the
	price of the books is greater than the average price of the books in the catalog and the
	year of publication is after 2000.
	4) Find the author of the book that has maximum sales.
	5)Demonstrate how you increase the price of books published by a specific publisher
	by 10%.
5	Consider the following database for a BANKING ENTERPRISE .
5	BRANCH(branch_name:string , branch_city:string , assets:real)
	ACCOUNT(accno:int , branch_name:string , balance:real)
	DEPOSITOR(customer_name:string , accno:int)
	CUSTOMER
	(customer_name:string,customer_street:string,customer_city:string)
	LOAN(loan_number: int , branch_name:string , amountreal)
	BORROWER(customer_name:string , loan_number:int)
	1)Create the above tables by properly specifying the primary keys and foreign keys.
	2)Enter at least five tuples for each relation.
	3) Find all the customers who have at least two accounts at the main branch.
	4) Find all the customers who have an account at all the branches located in a specific
	city.
	5)Demonstrate how you delete all account tuples at every branch located in a specific
	city.
6	Create a database having two tables with the specified fields, to computerize a library
	system of a Delhi University College.
	Library Books (Accession number, Title, Author, Department, Purchase Date,
	Price) Issued Books (Accession number, Borrower)
	a) Identify primary and foreign keys. Create the tables and insert at least 5 records
1	in each table.

	b) Delate the record of heads titled "Detahase System Concents"
	b) Delete the record of book titled "Database System Concepts".
	c) Change the Department of the book titled "Discrete Maths" to "CS".
	d) List all books that belong to "CS" department.
	e) List all books that belong to "CS" department and are written by author
	"Navathe".
7	Create a database having three tables to store the details of students of Computer
	Department in your college.
	Personal information about Student (College roll number, Name of student, Date of
	birth, Address, Marks(rounded off to whole number) in percentage at $10 + 2$, Phone
	number) Paper Details (Paper code, Name of the Paper) Student's Academic and
	Attendance details (College roll number, Paper code, Attendance, 15 Marks in home
	examination).
	a) Identify primary and foreign keys. Create the tables and insert at least 5 records
	in each table.
	b) Design a query that will return the records (from the second table) along with the
	name of student from the first table, related to students who have more than 75%
	attendance and more than 60% marks in paper 2.
	c) List all students who live in "Delhi" and have marks greater than 60 in paper 1.
	d) Find the total attendance and total marks obtained by each student.
0	e) List the name of student who has got the highest marks in paper 2.
8	Create the following tables and answer the queries given below:
	Customer (Cust ID, email, Name, Phone, Referrer ID) Bicycle (Bicycle ID, Date
	Purchased, Color, Cust ID, Model No) Bicycle Model (Model No, Manufacturer,
	Style) Service (Start Date, Bicycle ID, End Date)
	a) Identify primary and foreign keys. Create the tables and insert at least 5 records in
	each table.
	b) List all the customers who have the bicycles manufactured by manufacturer
	"Honda". c) List the bicycles purchased by the customers who have been referred
	by customer "C1".
	d) List the manufacturer of red colored bicycles.
	e) List the models of the bicycles given for service.
9	Create the following tables, enter at least 5 records in each table and answer the
	queries given below.
	EMPLOYEE (Person_Name, Street, City) WORKS (Person_Name, Company
	Name, Salary) COMPANY (Company_Name, City) MANAGES (Person_Name,
	Manager_Name)
	a) Identify primary and foreign keys.
	b) Alter table employee, add a column "email" of type varchar(20).
	c) Find the name of all managers who work for both Samba Bank and NCB Bank.
	d) Find the names, street address and cities of residence and salary of all employees
	who work for "Samba Bank" and earn more than \$10,000.
	e) Find the names of all employees who live in the same city as the company for which they work
10	which they work.
10	Create the following tables, enter at least 5 records in each table and answer the
	queries given below.

Suppliers (SNo, Sname, Status, SCity) Parts (PNo, Pname, Colour, Weight, City)
Project (JNo, Jname, Jcity) Shipment (Sno, Pno, Jno, Qunatity)
a) Identify primary and foreign keys.
b) Get supplier numbers for suppliers in Paris with status>20. 16
c) Get suppliers details for suppliers who supply part P2. Display the supplier list in increasing order of supplier numbers.
d) Get suppliers names for suppliers who do not supply part P2.
e) For each shipment get full shipment details, including total shipment weights.