VOCATIONAL COURSE
ON
OFFICE AUTOMATION USING MS OFFICE

Title of the course	:	Office Automation Using Ms-Office
Duration	:	6 months
Nodal department of HEI to run course	:	Computer Application, Jagran College of Arts, Science & Commerce, Saket Nagar, Kanpur
Broad Area/Sector	:	Office Automation
Sub Sector	:	Ms-Office
Nature of the course	:	Independent
Aligned NSQF Level	:	Foundation
Name of Proposed Skill Partner	:	RCPL Pvt. Ltd.
Job'Prospects	:	Office Automation, Data Entry, Data Analyst, Data Presenter, Desktop Publishing.

UNIT	TOPIC	GENERAL/SKILL DEVELOPMENT	THEORY/PRACTICAL/ INTERSHIP/TRAINING	NO. OF THEORY HOURS	NO. OF SKILL HOURS
UNIT 1	BASICS OF COMPUTER Introduction to Computer,Memory, CPU,I/O Devices, Computer Network	General	Theory	4	
UNIT2	OPERATING SYSTEMS MS-WINDOWS Operating System,Windows Desk top – GUI,Desktop icons and their functions, Dialog Boxes, Task Bar,Parts of Windows,Key board short keys or hotkeys	General	Theory	4	
	Working with Notepad & Word Pad	Skill Development	Practical		5
UNIT 3	OFFICE APPLICATIONS – I, MS-WORD	General	Theory	2	
	➤ Creating,editing,saving and printing text documents ➤ Font and paragraph formatting ➤ Simple character formatting ➤ Inserting tables,smart art,page breaks ➤ Using lists and styles ➤ Working with images ➤ Using Spelling and Grammar check ➤ Understanding document properties ➤ Mail Merge	Skill Development	Practical		10

UNIT 4	OFFICE APPLICATIONS – II, MS-EXCEL	General	Theory	2	
	➤ Spreadsheet Basics ➤ Creating, editing, saving and printing spreadsheets ➤ Working with functions & formulas ➤ Modifying worksheets with colour & auto formats ➤ Graphically representing data: Charts & Graphs ➤ Speeding data entry: Using Data Forms ➤ Analyzing Data: Data Menu, Sub total, Filtering Data ➤ Formatting work-sheets ➤ Securing &Protecting Spreadsheets.	Skill Development	Practical		10
UNIT 5	OFFICE APPLICATIONS - III MS OFFICE: MS-ACCESS	General	Theory	2	
	➤ MS Access: Introduction, ➤ Planning a Database, ➤ Access Screen, ➤ Creating a New Database, ➤ Creating Tables, ➤ Working with Forms, ➤ Creating queries, ➤ Finding Information in Databases, ➤ Types of Reports ➤ Printing & Print Preview, ➤ Importing data from other databases viz. MS Excel etc	Skill Development	Practical		10
UNIT 6	OFFICE APPLICATIONS - IV MS OFFICE: MS-POWER POINT	General	Theory	2	
	➤ Opening, viewing, creating, and printing slides ➤ Applying auto layouts ➤ Adding custom animation ➤ Using slide transitions ➤ Graphically representing data: Charts & Graphs ➤ Creating Professional Slide for Presentation.	Skill Development	Practical		10
UNIT 7	INTERNET & ADVANCED COMMUNICATION	General	Theory	4	
	➤ Understanding how to search/Google ➤ Internet and Web Browsers ➤ Bookmarking and Going to a specific website ➤ Copy and paste Internet content into your word file and emails ➤ Understanding social media platforms such as Facebook & Many more ➤ Learn with best practices	Skill Development	Practical		10

Suggested Readings:

1. *Fundamentals of computers - V.Rajaraman - Prentice- Hall of india*

2. *Microsoft Office 2007 Bible - John Walkenbach,Herb Tyson,Faithe Wempen,cary N.Prague,Michael R.groh,Peter G.Aitken, and Lisa a.Bucki -*

Wiley India pvt.ltd.

3. The complete reference Linux - Richard Petersen - Tata McGraw - Hill Edition 4. A Conceptual Guide to OpenOffice.org

4. R. Gabriel Gurley- Create Space Independent Publishing Platform, 2008

5. Introduction to Information Technology - Alexis Leon, Mathews Leon, and Leena Leon, Vijay Nicole Imprints Pvt. Ltd., 2013.

6. Computer Fundamentals - P. K. Sinha Publisher: BPB Publications

7. Operating System Concepts - by Abraham Silberschatz, Greg Gagne, and Peter Baer Galvin Publisher: Wiley; 8 edition (July 29, 2008)

8. Computer Networking 6th ed. - J.F. Kurose and K.W. Ross - Pearson;

9. Data Communications and Networking - Behrouz A. Forouzan, 2nd Edition - McGraw Hill Education;

10. Discovering the Internet: Complete - Shelly Cashman 4th Edition - Course Technology

11. Computer & Internet Basics Step-by-Step - Etc-end the Clutter - Infinity Publishing

12. https://en.wikipedia.org

13. https://bosslinux.in/sites/default/files/BOSS4.0-Usermanual.pdf (For EduBOSS3.0)

14. https://wiki.openoffice.org/wiki/Documentation 15. http://windows.microsoft.com/en-in/windows/windows-basics-all-topics

②

To be added with
already approved Voc. course
titled Office Automation using MS office for sem I.

VOCATIONAL COURSE

ON

OFFICE AUTOMATION USING MS-OFFICE

SEM- 2

Rohn Sharma

28/4/22

Title of the Course	:	Office Automation Using Ms-Office
Duration	:	6 Months
Nodal Department of HE1 to run course	:	Christ Church College, Kanpur
Broad Area/Sector	:	Office Automation
Sub Sector	:	LibreOffice
Nature of the Course	:	Independent
Aligend NSQF Level	:	Foundation
Name of Proposed Skill Partner	:	UPTEC Computer Consultancy Ltd.
Job Prospectus	:	Office Executive/Assistant,Call Center Executive/ Compulsory to Maximum state level clerical Jobs.

UNIT	TOPIC	GENRAL/SKILL DEVELOPMENT	THEORY/ PRACTICAL/ INTERNSHIP /TRAINING	NO. OF THEORY HOURS	NO. OF SKILLS HOURS
1	**Promo of LibreOffice Suite** ➢ LibreOffice promo ➢ Features of LibreOffice ➢ Uses of LibreOffice ➢ LibreOffice formats ➢ LibreOffice tutorials in Spoken Tutorial ➢ Applications of LibreOffice	General	Theory	2	
2	**What is Writer?** ➢ Introduction of Writer	General	Theory	1	
	➢ Parts of the main Writer window ➢ Title bar, Menu bar, Sidebar, Toolbars, Rulers & Status Bar ➢ How to create new document	Skill Development	Practical		2
3	**Working with Text Basics & Formatting Text & Pages**	General	Theory	1	

	➢ Introduction ➢ Selecting, cutting, copying & pasting the text ➢ Finding & Replacing the Text ➢ Checking Spelling & Grammar ➢ Using Auto Correct & Auto Text ➢ Formatting Paragraphs ➢ Formatting Characters ➢ Auto Formatting ➢ Formatting Numbered or bulleted list ➢ Inserting Page Break ➢ Changing Page Break ➢ Creating Headers & Footers ➢ Defining Borders and Backgrounds	Skill Development	Practical		4
4	**Printing, Exporting & Emailing** ➢ Quick export to PDF ➢ Page setup & Print Preview ➢ Controlling Printing	Skill Development	Practical		2
5	**What is Mail Merge**	General	Theory	1	
	➢ Creating a form letter ➢ How to Prepare data ➢ How to create documents ➢ Editing merged documents	Skill Development	Practical		2

6	**Introduction to Tables** ➢ Create simple & complex table ➢ Editing & deleting table contents ➢ Merging of two Tables ➢ Updating of Tables	Skill Development	Practical		4
7	**Images & Graphics** ➢ Creating & Editing of Images ➢ Adding Images to documents ➢ Cropping & Resizing Images ➢ Rotating & Drawing Images	Skill Development	Practical		2
8	**Introduction to Libre Office Calc** ➢ What is Calc, ➢ About spreadsheets, sheets and cells. ➢ Basic features – parts of main Calc window - Title & Menu Bar, Standard Toolbar, Formatting Toolbar, Formula Bar, Status Bar ➢ What is a cell, row, column, ➢ Create new document, enter data in one cell, save in Calc(CSV and other formats),opening/closing document. ➢ Save as ods, csv, xls, xlsx and export to PDF	General	Theory	2	-

	- How to enter numbers, text, numbers as text, date and time in Calc. - How to use the Format Cells dialog box. - How to Navigate between cells and in between sheets. - How to select items in rows, columns and sheets.	Skill Development	Practical		7
9	**Working with Sheets & Formatting Data** - Inserting and Deleting rows and columns Calc. - Inserting and Deleting Sheets in Calc. - Renaming Sheets - Borders, Color, Formatting Text, Increasing Cell Size - Formatting multiple lines of text, numbers, fonts, cell borders ,cell background - Automatic Wrapping and Using manual breaks - Merging cells, rows and columns, issues with using merge cells. - Shrinking text to fit the cell	Skill Development	Practical		8

10	**Working with Data & Basic Data Manipulation**	General	Theory	4	
	➢ Speed up using Fill tools and Selection lists ➢ Paste and paste special (values, transpose) ➢ Pasting a spreadsheet into writer as a table • Introduction to Formulas – Sum, Average, basic formula (=a*b+c) ➢ Subtotal ➢ Different kinds of functions available in spreadsheet ➢ Sorting by Columns ➢ Filtering Data - Basics	Skill Development	Practical	-	8
11	**Introduction to Libre Office Impress**	General	Theory	1	
	➢ Basic Features ➢ Different Toolbars ➢ Save as MS PowerPoint and other formats PDF ➢ Export open MS Office Documents ➢ Reopen the file which we saved..	Skill Development	Practical	-	2
12	**Creating & Viewing Presentation**				
	➢ Creating a presentation document ➢ Bbasic formatting	Skill Development	Practical	-	8

	➢ Inserting Slides ➢ Copying Slides Using Tabs Font size and Color, ➢ Viewing Presentation document ➢ Views options – Normal, Outline, Master Layout ➢ Uses of different view options ➢ Master Pages Task Option under Master Pages Write notes in impress.					
13	**Slide Design & Custom Animation**	General	Theory	2	
	➢ Slide Creation ➢ Slide Show Slide Transition ➢ Automatic Show (with Preset Timings) ➢ Use of Escape button ➢ Adding sound in slides ➢ Sorting of slides Setting speed ➢ Use of Notes ➢ Printing of Notes ➢ Use of Font Effects ➢ Use of drawing toolbar ➢ Filling up the color ➢ Printing of notes ➢ Use of Slide placeholder	Skill Development	Practical	-	12

Suggested Readings:

1. Getting Started with LibreOffice 6.0 Paperback – Import, 14 February 2019 **by** Libreoffice Documentation Team (Author)
2. Getting Started with LibreOffice 5.0 (English, Paperback, Documentation Team Libreoffice)

VOCATIONAL COURSE

ON

OFFICE AUTOMATION USING MS-OFFICE

SEM-3

Title of the Course	:	Office Automation Using Ms-Office
Duration	:	6 Months
Nodal Department of HE1 to run course	:	Christ Church College, Kanpur
Broad Area/Sector	:	Office Automation
Sub Sector	:	Web Page
Nature of the Course	:	Independent
Aligend NSQF Level	:	Foundation
Name of Proposed Skill Partner	:	UPTEC Computer Consultancy Ltd.
Job Prospectus	:	Webpage Designing, Webpage Developer

UNIT	TOPIC	GENRAL/SKILL DEVELOPMENT	THEORY/ PRACTICAL/ INTERNSHIP/ TRAINING	NO. OF THEORY HOURS	NO. OF SKILLS HOURS
1	**Getting Acquainted with HTML** ➢ Introduction to the Internet ➢ Introduction to HTML Terminology ➢ How to Write HTML Code	General	Theory	1	-
2	**Basic Tags and Document Structure for Designing a Webpage**	General	Theory	1	-
	➢ HTML Tags ➢ Head Tags ➢ Title Tags ➢ Body Tags ➢ Saving an HTML Page	Skill Development	Practical		4
3	**Page Formatting & Creating Lists**	General	Theory	2	-
	➢ Adding a New Paragraph ➢ Adding a Line Break ➢ Inserting Blank Space ➢ Preformatted Text ➢ Changing a Page's Background Color ➢ Headings ➢ Horizontal Lines ➢ Numbered (Ordered) Lists ➢ Bulleted (Unordered) Lists ➢ Definition Lists, Nested Lists	Skill Development	Practical	-	4

4	**What are Links & Images**	General	Theory	1	
	➢ Text Links ➢ Image Links ➢ Opening a Page in a New Window or Tab ➢ Setting all Links on a Page to Open in a New Window or Tab ➢ Linking to an Area on the Same Page (Bookmarks) ➢ Linking to an E-mail Address ➢ Linking to Other Types of Files. ➢ Introduction to Images for Web pages ➢ Adding Images to Web pages ➢ Resizing an Image ➢ Resizing an Image ➢ Alternative (ALT) Text	Skill Development	Practical		4
5	**Creating Tables & Forms**	General	Theory	2	
	➢ Inserting a Table ➢ Table Borders ➢ Table Headers ➢ Complex Table ➢ About Forms ➢ Text Boxes ➢ Text Areas ➢ Check Boxes ➢ Menu Lists ➢ Radio Buttons ➢ The Submit Button	Skill Development	Practical	-	4

	➢ The Reset Button				
6	**Video and Audio**				
	➢ About Video and Audio Files ➢ Adding Audio ➢ Adding Video ➢ Using YouTube to Display Video	Skill Development	Practical		1
7	**Cascading Style Sheets**	General	Theory	1	
	➢ CSS Syntax ➢ Types of CSS(Inline, Internal & External) ➢ Creating an External CSS ➢ ID and Class	Skill Development	Practical		4
8	**Working With Text in CSS & Borders**	General	Theory	1	
	➢ Text Alignment & Color ➢ Fonts & Font Size ➢ Margin & Padding ➢ How to create Text Border ➢ Types of Borders	Skill Development	Practical		4
9	**Creating Backgrounds in CSS**	General	Theory	2	
	➢ How to Create Border ➢ Background Colors & Gradients ➢ Linear Gradient ➢ Radial Gradient ➢ Conical Gradient	Skill Development	Practical		4

10	**Adding a Navigation Bar in CSS**	General	Theory	1	
	➢ Colors & Images ➢ Image Opacity ➢ How to Create Navigation Bar ➢ Vertical Navigation Bar ➢ Horizontal Navigation Bar				3
11	**How to create Division of Page**	General	Theory	1	
	➢ Div Tag ➢ Padding ➢ Margin of Div Tag ➢ How to Create Login Page Using Div Tag	Skill Development	Practical		4
12	**Getting Acquainted with JavaScript &The Makeup of JavaScript**	General	Theory	2	
	➢ Introduction to JavaScript ➢ The <SCRIPT>...</SCRIPT> Tag ➢ JavaScript Statements ➢ External JavaScript ➢ What are JavaScript Variables? ➢ Creating (Declaring) Variables ➢ Local Variables and Global Variables ➢ Exploring JavaScript Data Types	Skill Development	Practical		10

13	**JavaScript Functions ,Conditions, Loops &**	General	Theory	3	
	➢ JavaScript Function Definition and Syntax ➢ JavaScript Operators ➢ IF & Switch Conditions ➢ JavaScript Loops ➢ For Loop ➢ While Loop ➢ Do while Loop ➢ Break & Continue	Skill Development	Practical		10

Suggested Readings:

1. Creating Web Pages For Dummies by Bud E. Smith,Arthur Bebak
2. Web Designing and Publishing by Prof. Satish Jain and M. Geetha Iyer
3. Mastering Html, Css & Javascript Web Publishing by Laura Lemay (Author), Rafe Colburn (Author), Jennifer Kyrnin

VOCATIONAL COURSE

ON

Office Automation Using Ms-Office

(SEM-4)

Title of the Course	:	Office Automation Using Ms-Office
Duration	:	6 Months
Nodal Department of HE1 to run course	:	Christ Church College, Kanpur
Broad Area/Sector	:	Office Automation
Sub Sector	:	Artificial Intelligence and Internet of Things
Nature of the Course	:	Independent
Aligend NSQF Level	:	Foundation
Name of Proposed Skill Partner	:	UPTEC Computer Consultancy Ltd.
Job Prospectus	:	Data Analytics and Device & Hardware Engg.

UNIT	TOPIC	GENERAL/SKILL DEVELOPMENT	THEORY/PRATICAL/INTERSHIP/TRAINING	NO. OF THEORY HOURS	NO. OF SKILLS HOURS
UNIT 1	**INTRODUCTION TO INTELLIGENCE AND ARTIFICIAL INTELLIGENCE**				
	➢ Introduction ➢ Objectives ➢ Some Simple ➢ Definition of A.I. ➢ Definition by Eliane Rich ➢ Definition by Buchanin and Shortliffe ➢ Another Definition by Elaine Rich ➢ Summary	General	Theory	6	
UNIT 2	**INTELLIGENT AGENTS**				
	➢ Introduction ➢ Objectives ➢ Definitions Agents and Rationality ➢ Example: A boundary following robot ➢ Task Environment of	General	Theory	13	

Agents				
➢ Rationality vs. Omniscience ➢ Autonomy and learning capability of the agent PEAS(Performance, Environment, Actuators, Sensors) Example An Automated Public Road Transport Driver Different Types of Task Environments ➢ Fully Observable vs. Partially Observable Environment ➢ Static vs. Dynamic Environment ➢ Deterministic vs. Stochastic Environment ➢ Episodic vs. Sequential Environment ➢ Single agent vs. Multi-agent Environment ➢ Discrete vs.				

	Continuous Environment Some Examples of Task Environments ❯ Crossword Puzzle ❯ Medical Diagnosis ❯ Playing Tic-tac-toe ❯ Playing Chess ❯ Automobile Driver Agent The Structure of Agents ❯ SR (Simple Reflex) Agents ❯ Model Based reflex Agents ❯ Goal-based Agents ❯ Utility-based Agents ❯ Learning Agents				
UNIT 3	**Sensors**				

		General	Theory	4	

	INTRODUCTION
	SENSORS
	CLASSIFICATION OF
	SENSORS
	TYPES OF SENSORS
	➤ Position
	➤ Occupancy and motion
	➤ Velocity and
	  Acceleration
	➤ Force
	➤ Acoustic
	➤ Humidity
	➤ Light
	➤ Radiation
	➤ Temperature
	➤ Chemical
	➤ Image
	➤ Optical
	➤ Gas
	➤ Ultrasonic
	➤ Hall
	➤ Infrared sensors(IR)
	➤ Biosensors
	➤ Micro and
	  Nanosensors				

UNIT 4	**ACTUATORS**				

	CLASSIFICATION OF ACTUATORS ➤ Electrical Actuators ➤ Electromechanical Actuators ➤ Electromagnetic Actuators ➤ Hydraulic Actuators ➤ Pneumatic Actuators ➤ Smart Materials Actuators ➤ Microactuators	General	Theory	4	
UNIT 5	**BUILDING IOT APPLICATIONS**				
	INTRODUCTION TO ARDUINO TYPES OF ARDUINO BOARDS Arduino Uno Arduino Leonardo Arduino 101	General	Theory	5	
UNIT 6	**INTRODUCTION TO ARDUINO IDE**	Skill Development	Practical		5

	➤ Features of Arduino IDE ➤ How to download and Install Arduino IDE? **PARTS OF ARDUINO IDE** ➤ Menu Bar ➤ Text Editor ➤ Output Pane **WRITING/EDITING CODE IN SKETCH** **COMPILING-DEBUGGING** **UPLOADING AND RUNNING FILE** **ROLE OF SERIAL MONITOR**				
UNIT 7	**LED PROGRAMMING**	Skill Development	Practical		5

	➢ Arduino board
	➢ Breadboard
	➢ LED
	OPEN YOUR FIRST SKETCH
	  ➢ Void setup()
	  ➢ Void loop()
	VARIABLES AND INDENTIFIERS
	KEYWORDS
	BUILT-IN DATA TYPES
	VARIABLE SCOPE
	COMMENT
	PREPROCESSOR DIRECTIVE
	  ➢ The #include directive
	  ➢ The #define directive				

UNIT 8	**PROGRAMMING CONCEPT**				

	OPERATORS
	  ➢ Arithmetic Operators
	  ➢ Relation and Logical Operation
	  ➢ Assignment Operation
	  ➢ Pointer Operation
	  ➢ Bitwise Operation
		Skill Development	Practical		7

	CONDITIONAL STATEMENTS AND LOOPS **DECISION MAKING USING RELATIONAL OPERATORS** ➢ The if statement ➢ The if-else statement ➢ The condition operator(?:) ➢ Nested if-else Statement ➢ The switch statement	Skill Development	Practical		8
	LOGICAL CONNECTIVES LOOPS ➢ While loop ➢ do- while loop ➢ for loop ➢ nested loops ➢ infinite loops ➢ THE break STATEMENT ➢ THE continue STATEMENT	Skill Development	Practical		8
UNIT 9	**PROJECT USING IOT**				

➢ Write a program sequential LED ON-OFF. ➢ Write a program to interface buzzer with arduino board to buzz ON-OFF with the delay of 1 sec. ➢ Write a program to interface bottom and LED so that Led-blink glow one button is press. ➢ Write a program to interface keypad with arduino board and display the key press on serial monitor. ➢ Write a program to interface LED's on pin number 11, 12, and 13 and blink alternatively at delay of 1 second. ➢ Write a program to sense soil moisture using soil moisture sensor. ➢ Write a Program to	Skill Development	Practical		10

sense water using water sensor. ➤ **Automatic Attendance and Classroom Environmental Monitoring**				
Total hours =75			32	43

Recommended Books: -

1. Rich E. & Knight K. (1991). Artificial Intelligence. Tata McGraw-Hill Publishing Company Limited
2. IOT and Publishing by Prof. Satish Jain.
3. Russell S. & Norvig P, Artificial Intelligence: A Modern Approach (Second Edition), (Pearson Education, 2003).