



Eklavya University

SESSION

2023-24

M.Sc.(CS) I SEMESTER

SYLLABUS

OF

**Computer Application And Information
Technology Department**

School of Basic and Applied Sciences

EKLAVYA UNIVERSITY, DAMOH (M.P.)

Scheme of Examination Computer Science M.Sc. (cs) I Sem

For batch admitted in Academic Session 2023-24

Subject wise distribution of marks and corresponding credits

S.No.	Subject Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Periods Per week			Total Credits
			Theory Slot			Practical Slot			L	T	P	
			End Sem.	Mid term Examination	Quiz/ Assignment/ Attendance	End Sem	Lab Work/ sessional					
1	MCOSC20S101	Information Technology	60	30	10	-	-	100	4	1	-	5
2	MCOSC20S102	PC Packages	60	30	10	-	-	100	5	0	-	5
3	MCOSC20S103	Digital Electronic and Computer Organization	60	30	10	-	-	100	4	1	-	5
4	MCOSC20S104	Programming in C	60	30	10	-	-	100	4	1	-	5
5	MCOSC20S105	Communicative English	60	30	10	-	-	100	5	0	-	5
6	MCOSC20S106	Computer Lab 1	-	-	-	60	40	100	-	-	5	5
Total			300	150	50	60	40	600	22	3	5	30

Induction programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.

01/06/23
 01.06.23
 01/06/23
 01/06/23
 01/06/23

Class		MASTER OF SCIENCE (COMPUTER SCIENCE) MSC (CS)	
Semester/Year		SEMESTER - I	
Subject & Subject Code		INFORMATION TECHNOLOGY - MCOSC20S101	
Max. Marks		60 (ETE) + 40 (IA) =100	
Credit		Total Credits	
L	T	P	5
4	1	0	

Course Objectives:

1. To know computer evolution with features of each generation.
2. Identify various devices used in Computer system with specific use of each.
3. To know the place of computer in our day to day life, its characteristics, its usage, Limitations and benefits etc.
3. To know types of software and languages with specific use of each.
4. To understand Computer Network and Management Information System basics.

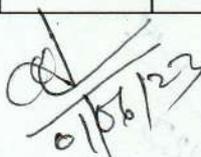
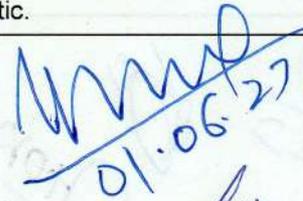
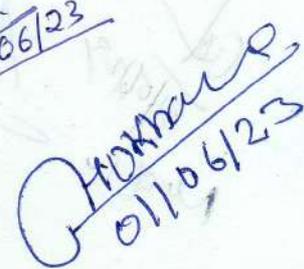
Course Outcome:

1. Describe Computer System evolution, Characteristics and Types.
2. Select Need base System Hardware and Software .
3. Classify Languages used in Computer System.
4. Describe the Use, Process, Types and Topologies of Computer Communication.
5. Understand the increasing role of management information system in managerial decision making with the help of computers and how information is processed, stored and utilized with example system.

Student Learning Outcomes (SLO):

1. describes the computer and its general features.
2. Defines computer with his/her own sentence
3. explains computers and data processing.
4. will be to able express basic computer hardwares.
5. distinguish computer types and basic concepts

Unit	Syllabus	Periods
UNIT - I	Introduction Evolution of Computers: Computer Generations, Classification of Computers. Computer Applications Introduction : Historical evolution of computers ,Block Diagram along with its components and characteristics ,Applications of computers. Number Systems: Definition of Number system necessity of binary number system ,Decimal, Octal, and Hexadecimal number system ,Interconversion of numbers, Representation of integers fixed and floating points, BCD codes ,Error Detecting and Correcting Codes ,character Representation-ASCII, EBCDIC ,Binary arithmetic.	8

 01/06/23
 01.06.23
 01/06/23
 01/06/23
 01/06/23
 ①

UNIT - II	Computer Organization Memory and Storage: Introduction Basic Computer Organization, Input Devices and Output Devices, Central Processing Unit. The System Bus, Bus Architecture, Memory or Storage .Unit Input/Output Devices: Keyboards ,mouse, joysticks, trackballs, digitizer, voice-recognition, optical recognition, scanners terminals, point-of-sale terminals, machine-vision systems. Hard-copy devices: Impact printers -DMPs Daisy-wheel printers, Line-printers. Non-impact printers - Inkjet ,Laser ,Thermal ,Plotters, Monitors . Memory & Mass Storage Devices: Characteristics of memory, systems types of memory, RAM, ROM. magnetic disks - floppy disk, hard-disk. optical disks :CD .Magnetic tapes; Concepts of Virtual and Cache memory.	8
UNIT - III	Software and its Need Types of Software : System software, Application software , System Software : Operating System ,Utility Program ,Programming languages Assemblers ,Compilers and Interpreter .Introduction to operating system for PCs-DOS Windows Linux. Programming languages : Machine ,Assembly, High Level, 4GL their merits and demerits. Application Software and its types : Word-processing , Spreadsheet , Presentation Graphics, Data Base Management , Software characteristics, Uses and examples and area of applications of each of them , Virus working and principles ,Types of viruses, virus detection and prevention.	8
UNIT - IV	Introduction Electronic Commerce (E-Commerce) : Electronic Data Interchange (EDI), Smart Cards, Mobile Communication , Internet Protocol . Digital Marketing : E-Marketing in an Entrepreneurial Context .The role of new media marketing in getting funds and support, E models for revenue E-customers , Social media marketing, Developing New Products and Services. CRM, Managing digital marketing effort. Web Strategy, Email marketing & Technology , Internet marketing , Consulting Affiliate marketing, network creation and management Driving traffic through search engine marketing , Search engine and directory submission services , Signature based article marketing , services Affiliate marketing network creation and management Paid. Advertising (Banner Text adverts) Web Analytics based, campaign management , Customized internet Marketing Solution , Social Media Optimization Services , Brand Engagement , Google Analytics Integration .	8
UNIT - V	LINUX - Linux introduction , Basic Features, Advantages, Installing requirement, Basic Architecture of Unix/Linux system, Kernel Shell start-up and shut-down process init and run levels. Essential Linux commands , Understanding shells Commands for files and directories cd, ls, cp, md, rm, mkdir, rmdir pwd, file more less creating and viewing files using cat file comparisons – cmp & comm View files disk related commands , checking disk free spaces. Batch commands kill, ps ,who ,sleep ,Printing commands find, sort, touch ,file. file related commands : ws, sat, cut, dd, etc. Mathematical commands : bc expr, factor, units Creating and editing files with vi, joe & vim editor.	8

References Books:



 [Signature] 01/06/23

 [Signature] 01.06.23

 [Signature] 01/06/23

 [Signature] 01/06/23

 (2)

1. Pradeep K Sinha Priti Sinha Computer Fundamentals Sixth Edn. BPB Publications
2. S.K.Basandra "Computers Today " Galgotia Publications.
3. Alexis Leon & Mathews Leon "Fundamentals of Information technology " Vikas Publishing House New Delhi.
4. V.Rajaraman Neeharika Adabala Computer Fundamentals PHI
5. Cristopher Negus "Red Hat Linux 9 Bible" IDG Books India Ltd.
6. Yashwant Kanetkar "Unix Shell Programming" BPB Publications
7. Red Hat Linux Unleashed Techmedia (Bpb Publications)
8. Jan Zimmerman and Deborah Ng -Social Media Marketing All-In-One for Dummies - 2017
9. Ryan Deiss and Russ Hennesberry Digital Marketing for Dummies- 2017

ad
01/06/23

mmf
01.06.23

Phu
01/06/23
PS

Shokhase
01/06/23
Neel

③

Class		MASTER OF SCIENCE (COMPUTER SCIENCE) MSC (CS)	
Semester/Year		SEMESTER - I	
Subject & Subject Code		PC PACKAGES - MCOSC20S102	
Max. Marks		60 (ETE) + 40 (IA) =100	
Credit		Total Credits	
L	T	P	5
5	0	0	

Course Objectives:

1. To familiarize student with Office Automation and Component of Office Automation.
2. To make them comfortable to evaluate, select and use Office Software appropriate to specific task.
3. To make them work on Open Software for Office Automation
4. To develop expertise in Word Processing, Spreadsheet, and Presentation Skills.
5. Create effective Presentation Using Animation and Transition.

Course Outcome:

The Students will be able to:

- 1: Outline Office Suit components with specific application.
- 2: List Open Office Software.
- 3: Apply Word Processing Tools including Document Formatting, Using Graphics, Working with Macro and Mail Merge.
- 4: Apply Spread Sheet Tools including Worksheet formatting, Using Functions, Graphics and Charts..

Student Learning Outcomes (SLO):

Students will:

1. to perform documentation.
2. to perform accounting operations.
3. to perform presentation skills.
4. Communication
5. Environment and Sustainability.

Unit	Syllabus	Periods
UNIT - I	MS Windows: Introduction to Ms Windows, Features of Windows, Various Versions of Windows & its use, Working with Windows, My Computer & Recycle Bin, Desktop Icons and Windows Explorer, Screen Description & Working Styles of Windows, Dialog Boxes & Toolbars, Working with Files & Folders, Simple Operations Like Copy, Delete, Moving of Files and Folders from One Drive to Another Shortcuts & Autostarts, Accessories and Windows Settings Using Control Panel Setting, common Devices Using Control Panel, Modem Printers, Audio Network, Fonts Creating, users Internet Settings, Start Button & Program Lists, Installing and Uninstalling New Hardware & Software Program on Your Computer.	8

[Signature]
01/06/23

[Signature]
01.06.23

[Signature]
01/06/23

[Signature]
01/06/23

[Signature]

UNIT - II	Office Packages: office Activates and Their Software Requirements , Word-Processing, Spreadsheet , Presentation Graphics Database. Introduction and Comparison of Various office Suites Like Ms-office , Lotus-office , Star-office , Open-office etc. Ms Word Basics: Introduction to Ms Word , Features & Area of use. Working with Ms Word Menus & Commands , Toolbars & Buttons, Shortcut Menus, Wizards & Templates . Creating a New Document , Different Page Views and Layouts, Applying Various Text Enhancements . Working with -Styles Text Attributes Paragraph and Page Formatting Text Editing Using Various Features : Bullets Numbering, Auto Formatting, Printing & Various Print Options .	8
UNIT - III	Advanced Features of Ms-Word: Spell Check, Thesaurus, Find & Replace, Headers & Footers, Inserting - Page Numbers, Pictures Files Autotext Symbols etc. Working with Columns Tabs & Indents , Creation & Working with Tables Including Conversion to and from Text Margins & Space Management in Document , Adding References and Graphics Mail Merge Envelops & Mailing Labels. Importing and Exporting to and from Various Formats.	8
UNIT - IV	Ms Excel: Introduction and Area of use Working with Ms Excel, Concepts of Workbook & Worksheets Using Wizards Various Data Types , Using Different Features with Data Cell and Texts Inserting, Removing & Resizing of Columns & Rows Working with Data & Ranges Different Views of Worksheets, Column Freezing , Labels Hiding, Splitting etc. Using Different Features with Data and Text, use of Formulas Calculations & Functions Cell , Formatting Including Borders & Shading Working with Different Chart Types, Printing of Workbook & Worksheets with Various Options.	8
UNIT - V	Ms PowerPoint: Introduction & Area of use, Working with Ms PowerPoint ,Creating a New Presentation, Working with Presentation Using Wizards, Slides & its Different Views Inserting , Deleting and Copying of Slides, Working with Notes Handouts Columns & Lists Adding Graphics. Sounds and Movies to a Slide : Working with PowerPoint , Objects Designing & Presentation of a Slide Show Printing Presentations Notes Handouts with Print Options. Outlook Express: Features and Uses Configuration and Using Outlook Express for Accessing EMail in office.	8

Text Books:

- 1 Computer Basics with Office Automation Paperback
- 2 Building a Foundation with Microsoft Office 2010
- 3 Microsoft Office Professional 2010

References Books:

1. Windows XP Complete Reference. BPB Publications
2. Ms Office XP Complete BPB Publication
3. Ms Windows XP Home Edition Complete BPB Publication.
4. Joe Habraken-Microsoft Office 2000 8 in 1 Prentice Hall of India
5. A. Mansoor I.T. Tools and Applications Pragma Publications Matura

Class		MASTER OF SCIENCE (COMPUTER SCIENCE) MSC (CS)	
Semester/Year		SEMESTER - I	
Subject & Subject Code		DIGITAL ELECTRONIC AND COMPUTER ORGANIZATION - MCOSC20S103	
Max. Marks		60 (ETE) + 40 (IA) =100	
Credit		Total Credits	
L	T	P	5
4	1	0	
Course Objectives:			
<ol style="list-style-type: none"> 1. To understand data representation for digital logic 2. To understand the basic blocks of digital logic 3. To understand the fundamental organization of a digital computer 4. To design simple combination & sequential circuits 5. To Know application of Registers. 			
Course Outcome:			
<ol style="list-style-type: none"> 1. Apply the principles of Number System, Binary Code and Boolean Algebra. 2. Acquire Knowledge about Logic Gates. 3. Design various Combinational and Sequential Circuits. 4. Describe various Memory System and Shift Register. 5. Understand Processor Organization and Design of Simple Computer. 			
Student Learning Outcomes (SLO):			
<ol style="list-style-type: none"> 1. express basic concepts and logic circuits 2. explains positive and negative logic states, TTL, MOS and CMOS integrated circuits properties. 3. explains logical AND, OR, NOT, NAND, NOR, EX-OR, EX-NOR functions. 4. explains the simplification of logical statements with karnaugh maps. 5. can show the simplification of logical statements. 			
Unit	Syllabus		Periods
UNIT - I	Data Representation : Data Types and Number Systems , Binary Number System , Octal & Hexa-Decimal Number System , Fixed Point Representation 1's & 2's Complement, Binary Fixed- Point Representation ,Arithmetic Operation On Binary Numbers . Overflow & Underflow Floating Point Representation Codes ASCII , EBCDIC Codes , Gray Code , Excess-3 & BCD Error Detection & Correcting Codes Binary Storage, Registers and type of		8
UNIT - II	Boolean Algebra and Digital Logic Circuits : Logic Gates and OR , NOT Gates and Their Truth Tables NOR, NAND & XOR Gates , Boolean Algebra, Basic Definition and Properties, Basic Boolean Law's Demorgan's Theorem , Map Simplification, Minimization Techniques. K Map : Two Three and More Variables Maps , Sum of Product & Product of Sums , Don't Care Conditions , Combination Circuits Half Adder & Full Adder, Full Subtractor, and Decimal Adder Code, Conversion Multilevel NAND and NOR Circuits Multiplexers and Demultiplexers, RAM and ROM Working & Circuit.		8

01/06/23

01/06/23

01/06/23

01/06/23

6

01/06/23

UNIT - III	Sequential Circuits Flip-Flops : RS, D , JK & T Flip-Flop , Triggering in Flip Flops , Analysis of Clocked Sequential Circuits , State Reduction and Assignment Flip Flop Excitation Tables , Registers , Counters and the Memory UNIT , Shift Registers , Ripple Counters and Synchronous Counters , Design of Counters. Common Bus System , Computer Instructions . Timing and Control Instruction Cycle Memory : Reference Instructions Complete Computer Description .	8
UNIT - IV	Design of Basis Computer : Control Logic Gates , Control of Registers and Memory Design of Accumulator , Logic Control of Ac Register , Adder and Logic Circuit , Multiple Bus Organization of Computer , Memory Addressing , Micro Program, Programming the Basis Computer Machine Languages, Assembly Language.	8
UNIT - V	Input-Output Organizations : I/O Interface , I/O Devices , Isolated Vs Memory-Mapped I/O ,Synchronous & Asynchronous , Data Transfer. Memory Organization : Auxiliary Memory, Magnetic Drum , Disk & Tape, Semi-Conductor Memories, Direct Memory Access (DMA) , Memory Hierarchy , Main Memory , Auxiliary Memory, Associative Memory , Cache Memory , Virtual Memory , Address Space & Memory Space, Address Mapping , Page Table , Page Replacement Segmentation , Cache Memory , Hit Ratio , Mapping Techniques , Memory Management, Hardware.	8

Text Books : -

- 1 Thomas I Floyd Digital Fundamental
- 2 Digital Electronics

References Books:

- 1 Digital Logic and Computer Design by Morris mano
- 2 Computer System Architecture by Morris Mano
- 3 Digital Electronics by Anil Kumar Maini publisher :Wiley and Sons

Handwritten signatures and dates:
 01/06/23
 01/06/23

Handwritten signatures and dates:
 01/06/23
 01/06/23

Handwritten signatures and dates:
 01/06/23
 01/06/23
 well

(7)

Class		MASTER OF SCIENCE (COMPUTER SCIENCE) MSC (CS)	
Semester/Year		SEMESTER - I	
Subject & Subject Code		PROGRAMMING IN C - MCOSC20S104	
Max. Marks		60 (ETE) + 40 (IA) =100	
Credit		Total Credits	
L	T	P	5
4	1	0	

Course Objectives:

1. Have Understanding of Programming Language Standards, Problem Solving Techniques, IDE and Compilers for C.
2. To have in depth knowledge of Writing, Compiling and Running Programs.
3. To understand and Practice Programming Construct: Variable, Operators, Control Structures, Loop, Functions with C ..
4. To understand and Practice basics of arrays, pointers, preprocessor, Structure and Union
5. To learn difference in procedural and Object oriented programming language with understanding of features and Practice beginner level of Pointers, Preprocessor, Programming

Course Outcome:

The Students will be able to:

1. List and Demonstrate Basic Terminology Used in Computer Programming Write, Compile and Debug Programs in C Language.
2. Understand and Apply Variable, Conditional Statements, Loops, Functions in C.
3. Practice Pointers, Structure, Union in Programming.
4. Explain and Differentiate the Process of Problem Solving Using Procedural Programming Language.
5. Understand and Practice Concepts in C.

Student Learning Outcomes (SLO):

Students will:

1. explain how an existing c program works.
2. discover errors in a C program and describe how to fix them
3. critique a C program and describe ways to improve it
4. analyze a problem and construct a program that solves it
5. choose and apply the required Linux commands to develop C programs in a command-line environment

Unit	Syllabus	Periods
UNIT - I	Problem Identification : Analysis , Design , Coding Testing & Debugging , Implementation , Modification & Maintenance .Algorithms & Flowcharts, Characteristics of a Good Program , Top Down Design , Bottom-Up Design.	8
UNIT - II	History of C: Structure of a C Program , Data Types , Constant & Variable , Naming Variables, Operators & Expressions , Priority & Associativity of Operators , Control Constructs, Case Switch Statement , Arrays and its Types , Formatted & Unformatted I/O , Type Modifiers & Storage Classes , Ternary Operator , Type Conversion & Type Casting.	8
UNIT - III	Functions Basics : Arguments , Return Value . Parameter Passing Techniques : Call by Value , Call by Reference , Return Statement , Scope Visibility and Life-Time Rules for Various Types of Variable , Calling a Function , Recursion, Types of Recursion : Direct Indirect Tree and Tail Recursion When to Avoid Recursion.	8

Handwritten signature
01/06/23

Handwritten signature
01/06/23

Handwritten signature
01/06/23

8

Handwritten signature
01/06/23

Handwritten signature
01/06/23

Handwritten signature

UNIT - IV	Special Constructs: Break, Continue , Exit() , Goto & Labels. Pointers: & and * Operators, Pointer Expression , Pointer Arithmetic String , pointer V/S Array, Pointer to Pointer, Array of Pointer & its Limitation , Function Returning Pointers, Pointer to Function ,Pointer as Function Parameter.Structure: Basics Pointer to Structure Referential Operator, Self Referential Structures , Structure Within Structure , Array in Structure , Array of Structures, Union: Basics Declaration and use, Difference B/W Structure and Union.	8
UNIT - V	DMA: Dynamic Memory Management , Concept and its Functions. File Handling: File Handling Concept and its Related Functions, Types of File and Differences b/w Them, Command Line Argument, File as Command Line Argument,C Preprocessor: Basics , Various Preprocessor Directives and Their use.	8

Text Books :-

- 1 Kerninghan& Ritchie "The C Programming Language", PHI
- 2 Schildt "C:the Complete Reference", 4th Ed TMH
- 3 Kanetkar Y. "Let Us C", BPB.
- 4 M. Kumar 'Programming In C++' TMH Publications
- 5 Kanetkar Y.: "Pointers in C",BPB

References Books:

- 1 Gottfried : "Problem Solving in C" Schaum Series
- 2 Balagurusami "Programming in ANSI C" 7th Ed McGraw Hill Education.

[Signature] 01/06/23

 [Signature] 01/06/23

 [Signature] 01/06/23

 [Signature] 01/06/23

 [Signature] 01/06/23

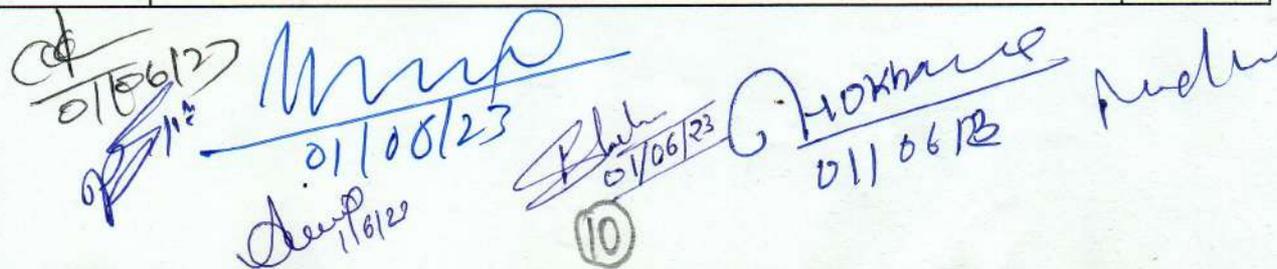
 9

[Signature] 01/06/23

 [Signature] 01/06/23

 [Signature] 01/06/23

Class		MASTER OF SCIENCE (COMPUTER SCIENCE) MSC (CS)	
Semester/Year		SEMESTER - I	
Subject & Subject Code		COMMUNICATIVE ENGLISH - MCOSC20S105	
Max. Marks		60 (ETE) + 40 (IA) =100	
Credit		Total Credits	
L	T	P	5
5	0	0	
Course Objectives:			
<p>1. Learn Basics of Communication.</p> <p>2. Learn and develop the skills of writing, speaking, reading and listening.</p> <p>3. Know telephonic conversation skills, Interview skills and Group Discussion basics.</p> <p>4. Gain the knowledge and develop personality , soft skills ,presentation skills.</p> <p>5. To develop reading skills.</p>			
Course Outcome:			
<p>1. Inculcate Process of Communication and identify barriers in cmunication.</p> <p>2. Demonstrate the competency in English language through understandability and practice in four skills of language such as writing, speaking, reading and listening.</p> <p>3. Develop skills for working in team and individually.</p> <p>4. Inculcate soft skills and develop personality through participation in group discussion, mock interview, group and individual presentation</p> <p>5. Practice reading skills in English language specific to eminent Indian Authors.</p>			
Student Learning Outcomes (SLO):			
<p>1. develop vocabulary and improve the accuracy in grammar.</p> <p>2. produce words with right pronunciation.</p> <p>3. Improve LSRW- listening, speaking, reading and writing skills and the related sub-skills.</p> <p>4. demonstrate positive group communication exchanges.</p>			
Unit	Syllabus		Periods
UNIT - I	The Process of Communication : Communication the Process of Communication , Barriers of Communication , Different Types of Communication , Characteristics and Conventions of Conversation , Conversational Problems of Second/Foreign Language Users , Difference Between Conversation and Other Speech Events .		8
UNIT - II	Telephone Techniques: Speaking and Listening , Conference Calls , Vocabulary Building , Writing Grammar and Usage Pronunciation . Job Applications and Interviews: Reading Curriculum, Vitae Preparing for an Interview , Listening and Speaking in the Interviews . Group Discussions: GroupDiscussion Study Skills , Language Focus Speaking.		8
UNIT - III	Soft Skills : Practice Personality Development , Participating in Group Discussion and Job Interviews , Time Management, Presentation Skills , Leadership Skills , Assertiveness Lateral Thinking Team Work and Interpersonal Skills , Emotional Intelligence , Self-Confidence and Courage Attitude . Presentation Skills: Presentation Skills Importance of Body Language in Presentations , Pronunciation , Visual Aids , Podium Panic Speaking.		8



 01/06/23
 01/08/23
 01/06/23
 01/06/23
 11/6/22
 10

UNIT - IV	Managing Organizational Structure: Role of a Manager , Leadership Language Focus Writing Reports Pronunciation Meetings: Successful Meeting , One to One Meeting , Editing Criteria for Successful Meetings, Reporting Verbs , Memos , Taking Notes and Preparing Minutes: Taking Notes Preparing Minutes Grammar .	8
UNIT - V	Functional Grammar- Tenses: Simple , Present , Progressive , Perfect Present , Perfect Progressive Alongwith Past Tense and Indications of Futurity Reported .Speech Modals: Will , Shall , Should , Would. Others Voice: Active and Passive	8

Text Books : -

- 1 Barun K. Mitra- Personality Development and Soft Skills
- 2 Shashikumar and Dhameja-Spoken English
- 3 Raymond Williams- English Grammar
- 4 R C Sharma- Business Correspondence

References Books:

1. Darer. Shankar-Communication Skills in English Language
2. Dr. Uremia Rai and S.M.Rai - Business Communication
3. B. K. Das- an Introduction to Professional English and Soft Skills
4. Barun K. Mitra- Personality Development and Soft Skills
5. Shashikumar and Dhameja -Spoken English
6. Raymond Williams- English Grammar
7. Wren and Martin -English Grammar and Composition
8. Justin Seeley -Designing Presentation

Shubh
01/06/23

Ad
01/06/23

Murphy
01/06/23

Melhr
B

Hokhane
01/06/23
①①

Seeley
1/6/23

Handwritten signatures and dates at the bottom of the page, including names like 'Hokhane' and dates like '01/06/23'.

Class		MSc.(cs) YEAR	
Semester/Year		SEMESTER — I	
Subject & Subject Code		Computer Lab 1 - MCOSC20S106	
Max. Marks		100 [80+20]	
Credit		Total Credits	
L	T	P	5
0	0	5	

LINUX LAB

: Experiment with each of these commands:

Mkdir rmdir cd lspwd cat head more rmcp who date cal man

1. Type the command whoami
2. Create a new directory named lab2
3. Change directories into lab2
4. List all files even hidden files (directory should be blank)
5. Create a new file that contains the calendar for this month
6. List all files again even hidden files (there should be just one file)
7. Display the entire contents of that new file
8. Delete the file
9. Ask the system when is easter in 2012
10. Ask the system for today's date

PC PACKAGE LAB:

A. Experiment on Word Processing:

1. Type the Following Paragraph as Given.

"My Dream Career"

My Ambition of Life is to Become a Doctor. I Have Taken Up Science and Hygiene as Optional Subjects. When I Joint College I Shall Take UP Medical Group. I Shall Appear in the P.M.T. Examination to Qualify for Joining a Medical College. After Passing the P.M.T. I Shall Join the Medical College to Become a Doctor.

I Would Like to Be a Doctor. My Country Has Become Free from Diseases Government Has Decided to Uproot the Diseases from the Country and Improve the Health of the People. Hospitals are Being Opened for This Purpose. There is Great Demand for Doctor. Taking All These Things into Consideration I Have Made Up Mind to Become a Doctor.

I Do Not Want to Be Clerk. This Line Does Not Suit Me. I Do Not Want to Be a Teacher. Law is Not a Paying Profession These Days So Becoming Lawyer is Not My Goal.

2. Correct any Spelling Errors Displayed in the Given Text.
3. Save the Document as <My Dream >_W01.

[Handwritten signatures and dates]
 01/06/23
 01/06/23
 01/06/23
 01/06/23
 01/06/23
 12

4. Change the Layout of the Page as Given Below.
 - >Page Size: A4 (8.27• X 11.69•) >Page Orientation: Landscape
5. Change the Page Margins as Follows:
 - >Top: 1.25• >Bottom: 1.25• >Right: 1.25• >Left: 1.25•
6. Format the Entire Document as Given Below.
 - >Line Spacing: 1.15" >Font: Times New Roman >Font Size: 14 >Align: Justify
7. Select the Heading "Academy Award" and Format It as Given Below.
 - >Font Color: Blue >Style: Bold and Underline >Align: Center
 - >Change All the Letters to Uppercase
8. Make the First Letter of the Paragraph Larger and Fall into Three Lines (Drop Cap).
9. Format the Heading "My Dream Career" with Style: Heading 2.
10. Create a Bulleted List for the Last Paragraph Lines of Document.
11. Enter "My Document Tutorial" Text as the Heading of the Table and Format It to Get the Following Output Using a Word Art. (Font: Arial Black Font Size: 16 Align: Center)
12. Insert Footer with the Following Formatting Options.
 - >Caption: <My First Document>>Font: Times New Roman >Font Size: 12
13. Insert the W01 Image Given in the "Resources" Directory to the Right Hand Side of the Bulleted List of the Document.
14. Prepare Your Class Time Table Using and Format the Entire Table as Given Below.
 - > Change the Cell Size of the Table to Auto Fit to Contents. >Align: Center
15. Select the Heading Row and Format It as Given Below.
 - > Convert All Text in to Capital Letters >Style: Bold >Align: Center
16. Insert a New Row Just Below the Last Row of the Table and Enter the Following Information into the New
 - Row: >Saturday : Special Lecture On Cloud Computing > Merging All the Column.
17. Send a Call Letter for All Applicants to Inform Interview Details Using Mail Merge Base
18. Preparing a Govt. Order / official Letter / Business Letter / Circular Letter
 - Covering Formatting Commands - Font Size and Styles - Bold Underline Upper Case Lower Case Superscript Subscript Indenting Paragraphs Spacing Between Lines and Characters Tab Settings etc.
19. Preparing a News Letter :
 - To Prepare a Newsletter with Borders Two Columns Text Header and Footer and Inserting a Graphic Image and Page Layout.
20. Creating and Using Styles and Templates

Handwritten signatures and dates in blue ink:

- ⑬
- 01/06/23
- 01/06/23
- 01/06/23
- 01/06/23
- 01/06/23

To Create a Style and Apply That Style in a Document

To Create a Template for the Styles Created and Assemble the Styles for the Template.

21. Creating and Editing the Table

To Create a Table Using Table Menu

To Create a Monthly Calendar Using Cell Editing Operations Like Inserting Joining Deleting Splitting and Merging Cells

To Create a Simple Statement for Math Calculations Viz. Totaling the Column.

22. Creating Numbered Lists and Bulleted Lists

To Create Numbered List with Different Formats (with Numbers Alphabets Roman Letters)

To Create a Bulleted List with Different Bullet Characters.

23. Printing Envelopes and Mail Merge.

a. To Print Envelopes with from Addresses and to Addresses

b. To use Mail Merge Facility for Sending a Circular Letter to Many Persons

c. To use Mail Merge Facility for Printing Mailing Labels.

24. Using the Special Features of Word

25. To Find and Replace the Text

26. To Spell Check and Correct.

27. To Generate Table of Contents for a Document

28. To Prepare Index for a Document.

29. Create an Advertisement

30. Prepare a Resume.

31. Prepare a Corporate Circular Letter Inviting the Share Holders to Attend the Annual Meeting

B. Spreadsheet Experiment:

1. Create a Blank Spreadsheet in and Save It as "<Your Index No>_E01".

2. Create a Table with 7 Rows and 8 Columns in the Cell Range A3:H9.

3. Insert a Title "Vivekananda College " and a Sub Title "Mark Sheet for a/L Biology- Class a" by Centering It with the Table Making the Text Bold and Changing the Font Size 16 for Main Title and 14 for Subtitle.

4. Enter Data of 6 Students Under the Columns "Roll No" "Name" "Physics" "Chemistry" "Biology" and "English".

5. use the Relevant Formula to Calculate the Total Marks and Average and Copy the Formula to the Relevant Cells.

6. Format the "Average" Column with Two Decimal Places.

7. use Conditional Formatting to Change the Color of the Cells of Which the Average Mark is More Than 60 into Green.

01/06/23
01/06/23

01/06/23
01/06/23
14

01/06/23
01/06/23
Mdkh

School of Basic & Applied Sciences

8. Select the Columns "Roll No" "Physics" "Chemistry" "Biology" and "English" Column and Draw a Column Chart.
9. Insert the Title "Vivekananda College " and the Sub Title "Mark Sheet for a/L Biology - Class a" to the Top of the Chart.
10. Set the X Axis Labels with the Index Numbers.
11. Label the X Axis Title as "Roll No" and Y Axis Title as "Marks".
12. Label the Legends for 4 Subjects "Physics" "Chemistry" "Biology" and "English".
13. Make Sure to Get a Graph Similar to the One Given Below.
14. Sorting Data Filtering Data and Creation of Pivot Tables.
15. Operating On the Sheets: Finding Deleting and Adding Records Formatting Columns Row Height Merging Splitting Columns etc. Connecting the Worksheets and Enter the Data.

C.Presentation Experiments

1. Create a Presentation with Four Blank Slides.
 - a. Insert a Suitable Design Template.
 - b. Insert a Footer to Show Your Name and Your Student Id.
 - c. Insert Today's Date as a Fixed Date in the Date Area.
 - d. Make Necessary Changes to Appear Slide Numbers in the Slide Number Area.
 - e. Make Necessary Changes So That the Footer Date and the Slide Number Do Not Appear On the Title Slide (First Slide).
 - f. Add Content to the Title Slide (First Slide) by Following the Instruction Given Below.
 - g. Type "River" as the Slide Title and It's Format Should Be Font Type: Arial Style: Bold Size:96 Color: Black [10 Marks]
 - h. Type "Our Life Support" as the Sub Title and Insert an Image from the Resources Directory to a Suitable Location.
 - i. Add Content to the Second Slide By Following the Instruction Given Below.
 - j. Type the Slide Title as "Rivers of North India" and Format It as
 - Font Type: Arial Style: Bold Size: 44 Color: Black
 - k. Insert the Following Content as Shown Below.
 - The Ganga
 - The Indus
 - The Brahmaputra

In the Third Slidè Add the Following Components.

- a. Type the Slide Title as "Tributaries"
- b. Insert Rivers and Their Tributaries of Slide 2 in a Table.
- c. Insert Few More Important Rivers of India with Their Regions
- d. Add the Following Animation Effects to Your Presentation.

Shree
11/06/23

(15)

Shree
01/06/23

Shree
01/06/23

Shree
01/06/23

Shree
01/06/23

- e. Apply Emphasis Animation Effect to Each Main Point and Sub Point in the Second Slide.
- f. Apply Sound Effect When the Second Slide Appears in the Slideshow.
- g. Hide the Fourth Slide from the Slide Show.
- h. Save Your Presentation with the Following File Name <Rivers_of_North India>_P01.

D. Additional Practicals

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.
3. Creating a Presentation Applying Custom Animation Effects –
4. Applying Multiple Effects to the Same Object and Changing to a Different Effect and Removing Effects.

C PROGRAMMING LAB:

1. Write a Program in C to Calculate Simple Interest When the Values of Principal Rate and Time are given.
2. Write a Program in .C to Calculate Area of a Circle When its Radius is Input from Keyboard.
3. Write a Program in C to Calculate Temperature in Centigrade When Temperature in Fahrenheit is Input from Keyboard.
4. Write a Program in C to Calculate Area of a Triangle When its Three Sides are Input from Keyboard (by Hero's Formula).
5. Write a Program in C to Determine Whether an Input Year is Leap Year or Not.
6. Write a Program in C to Display the Table of a Number Input from Keyboard in the Following Format:

$$N \times 1 = N$$
 Eg: $5 \times 1 = 5$
 $1.5 \times 2 = 10$
7. Write a Program in C to Display the Table of Tables from 1 to 10.
8. Write a Program in C to Display the Following Patterns
9. Write a Program to Calculate the Factorial of a Number Input from Keyboard Using Recursive Method.
10. Write a Program in C to Show How to Pass an Array to a User Defined Function.
11. Write a Program in C to Display Largest Element of an Array When the Elements of the Array are Input from Keyboard.
12. Write a Program in C to Calculate Area of a Circle in a User Defined Function.
13. Write a Program in C to Swap Two Numbers Using Call by Value and Call by Address.
14. Write a Program in C to Reads Name Roll No Percentage of Five Students and Display Them Using Array of Structures.
15. Write a Program in C to Show How to Pass a Structure to a User Defined Function.

[Handwritten signature]
01/06/23

[Handwritten signature]
01/06/23

[Handwritten signature]
01/06/23

[Handwritten signature]
01/06/23

