

STATE BOARD OF TECHNICAL EDUCATION, BIHARScheme of Teaching and Examinations for
IIIRD SEMESTER DIPLOMA IN MODERN OFFICE PRACTICE
(Effective from Session 2020-21 Batch)**THEORY**

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHING SCHEME	EXAMINATION – SCHEME							Credits
			Periods per Week	Hours of Exam.	Teacher's Assessment (TA) Marks (A)	Class Test (CT) Marks (B)	End Semester Exam. (ESE) Marks (C)	Total Marks (A+B+C)	Pass Marks ESE	Pass Marks in the Subject	
1.	Language and Communication Skill-II (English & Hindi)	2026301	04	03	10	20	70	100	28	40	03
2.	Computer Programming Through 'C'	2000302	03	03	10	20	70	100	28	40	03
3.	Managerial Economics	2026303	03	03	10	20	70	100	28	40	03
4.	Management Information System	2026304	03	03	10	20	70	100	28	40	03
5.	E-Typing-I	2026305	03	03	10	20	70	100	28	40	03
Total: -			16				350	500			15

PRACTICAL

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHINGS SCHEME	EXAMINATION – SCHEME					Credits
			Periods per Week	Hours of Exam.	Practical		Total Marks	Pass Marks in the Subject	
					Internal (PA)	External (ESE)			
6.	Computer Programming Through 'C' Lab	2000306	06 50% Physical 50% Virtual	03	15	35	50	20	03
7.	Language and Communication Skill-II (English+ Hindi) Lab	2026307	04 50% Physical 50% Virtual	03	23	52	75	30	02
8.	E-Typing-I Lab	2026308	02 50% Physical 50% Virtual	03	15	35	50	20	01
Total:-			12				175		06

TERM WORK

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHING SCHEME	EXAMINATION – SCHEME				Credits
			Periods per week	Marks of Internal (PA)	Marks of External (ESE)	Total Marks	Pass Marks in the Subject	
9.	Language and Communication Skill-II (English+ Hindi) & GD Discussion (TW)	2026309	03	15	35	50	20	02
10.	Python / Others (TW)	2000310	02	07	18	25	10	01
Total: -			05			75		03
Total Periods per week Each of duration one Hours =			33	Total Marks = 750			24	

LANGUAGE & COMMUNICATION SKILL-II (ENGLISH + HINDI)

Subject Code 2026301	Theory			No of Periods in One Session: 60			Credits
	No. of Periods Per Week			Full Marks	:	100	03
	L	T	P/S	ESE	:	70	
	04	-	-	TA	:	10	
	-	-	-	CT	:	20	

ENGLISH

Rationale:

Communication is the most important part of managerial process. It is expected by the diploma students to excel in written and oral communication and also to put up an effective presentation both in Hindi and English language.

The aim of the subject 'Language and Communication Skill-English' is to provide the theoretical knowledge for acquiring skills in effective Communication along with their higher authorities and sub-ordinates. The Course will also help to develop students personality and subsequently prepare them for a successful professional life as an office assistant / Salesman/ Library assistant/ Librarian/ Designer/ receptionist, etc. Therefore, the theory curriculum has been designed to meet the above need by bringing about an improvement in their presentation method.

Creative writing helps to enhance writing and fluency skill in any language. Writing helps to express our views directly originating from our mind. Creative Writing also enhances our verbal skills. After all, writing makes a man perfect.

Objectives:

The students will be able to –

- Develop their personality traits.
- Make them enable to understand the conversation with their higher authorities/ sub ordinates/ other persons concerned.
- Expose their personality effectively.
- Develop good relations/ contacts with different types of persons concerned.
- Develop skill of impromptu well as public speech.
- Develop writing skill.

Contents : Theory		Hrs/week	Marks
Units-1	Forms of Communication	[02]	
Units-2	Personality Development	[03]	
Units-3	Power of Expression	[02]	
Units-4	Practice on polishing one's voice	[02]	
Units-5	Effective Communication	[02]	
Units-6	Courtesy.	[02]	
Units-7	Conversation on telephone	[02]	
Units-8	Careful listening	[03]	
Units-9	Mannerism	[03]	
Units-10	Presentation	[03]	
Units-11	Organising your presentation	[03]	
Units-12	Group Discussion	[02]	
Units-13	Extempore speech	[02]	
Units-14	Body language	[03]	
Units-15	Feedback	[02]	
Units-16	Creative Writing	[03]	
Units-17	Essay Writing	[03]	
Units-18	Reportage	[03]	
Units-19	Feature	[02]	
Units-20	Personal Interview	[03]	
Total		50	

Books Recommended:

Text Books

1. Fearless and Flowless Public Speaking with power, polish and pizzaz,

-Marry Ellen Diamond
(S.Chand & Company)

CONTENTS: (THEORY)		Hrs	Marks
UNIT – 1	<u>भाषा के रूप</u> I. मौखिक भाषा एवं लिखित भाषा का प्रयोग। II. स्वरूप एवं महत्व III. सारांश	[02]	
UNIT – 2	<u>वचन की निर्भीकता</u> I. वक्ता की निर्भीकता II. भय को उत्साह में परिवर्तित करने की तकनीक III. अभ्यास	[03]	
UNIT – 3	<u>आवाज का महत्व एवं वाणी की विशिष्टता</u> I. दूरभाष वार्तालाप एवं शिष्टाचार II. प्रभावशाली संप्रेषण में वाणी की भूमिका III. विशिष्टतायुक्त वाणी	[03]	
UNIT – 4	<u>शारीरिक भाषा</u> I. शारीरिक भाषा का परिचय एवं महत्व II. भाव भंगिमा ,द्वारा संप्रेषण III. नेत्र संचार	[03]	
UNIT – 5	<u>प्रस्तुतीकरण</u> I. प्रस्तुतीकरण की योजना एवं रूप रेखा II. प्रस्तुतीकरण की तैयारी III. पूर्वाभ्यास	[03]	
UNIT – 6	<u>हास्य एवं दृश्य प्रस्तुतीकरण</u> I. प्रभावकारी दृश्य की रचना एवं समावेश II. पर्चा, पोस्टर आदि की रचना III. प्रस्तुतीकरण में हास्य का महत्व IV प्रस्तुतीकरण में हास्य का प्रयोग	[05]	
UNIT – 7	<u>मौखिक संप्रेषण एवं शिष्टाचार</u> I. संप्रेषण में शिष्टाचार का महत्व II. व्यक्तित्व परिचय एवं संतुष्टि III. परिचय के तत्व एवं कार्य	[05]	

	<p>IV वक्ता का शिष्टाचार</p> <p>V परिचय कर्ता का शिष्टाचार</p>		
UNIT – 8	<p><u>प्रस्तुति एवं प्रश्नोत्तर</u></p> <p>I श्रोताओं से प्रश्न लेना</p> <p>II प्रश्नों के उत्तर देना</p> <p>III प्रश्नोत्तर काल</p>	[03]	
UNIT – 9	<p><u>सक्रिय श्रवण</u></p> <p>I सक्रिय श्रवण परिचय एवं महत्व</p> <p>II सक्रिय श्रवण की तकनीक</p> <p>III प्रभावकारी श्रवण एवं मोहित श्रोता</p>	[03]	
UNIT – 10	<p><u>फीडबैक</u></p> <p>I फीडबैक परिचय</p> <p>II फीडबैक प्राप्त करना एवं फीडबैक देना</p> <p>III फीडबैक का मूल्यांकन</p> <p>IV प्रभावकारी फीडबैक का महत्व</p> <p>V फीडबैक द्वारा प्रस्तुतीकरण कौशल में वृद्धि</p>	[05]	
UNIT – 11	<p><u>सृजनात्मक लेखन</u></p> <p>I परिचय एवं प्रकार</p> <p>II महत्व</p> <p>III विविध क्षेत्र</p>	[05]	
UNIT – 12	<p><u>निबंध लेखन</u></p> <p>I परिचय एवं स्वरूप</p> <p>II निबंध के प्रकार</p> <p>III निबंध लेखन</p> <p>IV वैचारिक निबंध</p>	[05]	
UNIT – 13	<p><u>रिपोर्टाज लेखन</u></p> <p>I रिपोर्टाज लेखन</p> <p>II निबंध एवं रिपोर्टाज के अंतर</p> <p>III अभ्यास</p>	[03]	

UNIT – 14	<u>फीचर लेखन</u> । फीचर लेखन का स्वरूप ॥ शैली एवं अभ्यास	[02]	
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COMPUTER PROGRAMMING THROUGH 'C'

Subject Code 2000302	Theory			No of Period in one session :50			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	100	
	03	—	—	TA	:	10	
			CT	:	20		

Course Learning Objective:

Computers play a vital role in present day life, more so, in the professional life of technician engineers. In order to enable the students, use the computers effectively in problem solving, this course offers the modern programming language C along with exposition to various engineering applications of computers.

Objective:

The objectives of this course are to make the students able to:

- Develop efficient algorithms for solving a problem.
- Use the various constructs of a programming language viz. conditional, iteration and recursion.
- Implement the algorithms in “C” language.
- Use simple data structures like array, stacks and linked list solving problems.
- Handling File in “C”.

Contents: Theory		Hrs	Marks
<u>Unit -1</u>	<p><u>Introduction to computer software:</u></p> <ul style="list-style-type: none"> ➤ Classification of computer software. <ul style="list-style-type: none"> • System software. • Application software. ➤ Programming languages. <ul style="list-style-type: none"> • Machine languages. • Assembly languages. • High level programming languages. ➤ Algorithms and flowchart. 	[03]	
<u>Unit -2</u>	<p><u>Fundamental of C languages.</u></p> <ul style="list-style-type: none"> ➤ Introduction. <ul style="list-style-type: none"> • Background. • Characteristics of C. • Uses of C. ➤ Structure of a C program. ➤ Writing the first C program. ➤ Files used in a C program. <ul style="list-style-type: none"> • Source code files. • Header files. • Object files. • Binary executable files. ➤ Compiling and Executing C programs. ➤ Using comments. ➤ Characters used in C. <ul style="list-style-type: none"> ➤ Identifier. ➤ Keyword or Reserved words. ➤ Tokens. ➤ Constants. <ul style="list-style-type: none"> • Numeric constant. 	[08]	

	<ul style="list-style-type: none"> • String Character constant. ➤ Variables. ➤ Variable Declaration. ➤ Basic Data Types. ➤ Additional Data types. ➤ Operators and Expressions. ➤ Operator Precedence and Associativity. ➤ Type conversion and Type casting. ➤ Input/ Output statements in C. 		
<u>Unit -3</u>	<p><u>Decision Control and Looping Statements:</u></p> <ul style="list-style-type: none"> ➤ Introduction to Decision control statements. ➤ Conditional Branching statements. <ul style="list-style-type: none"> • If statement. • If-else statement. • If-else-if statement. • Switch case. ➤ Iterative statements. <ul style="list-style-type: none"> • While loop. • Do-while loop. • For loop. ➤ Nested loops. ➤ Break and continue statements. <ul style="list-style-type: none"> • Break statement. • Continue statement. ➤ Goto statement. 		
<u>Unit -4</u>	<p><u>Functions in 'C'.</u></p> <ul style="list-style-type: none"> ➤ Uses of functions. ➤ User defined functions. ➤ Function Declaration. ➤ Calling a function. ➤ Actual and formal Arguments. ➤ Rules to call a function. ➤ Function propotype. ➤ Recursion. <ul style="list-style-type: none"> • Use of Recursive function. ➤ Local or Internal variables. ➤ Global or External variables. ➤ Void function. ➤ Storage classes in C. <ul style="list-style-type: none"> • Auto or Automatic Storage class. • Static Storage class. • Extern Storage class. • Register Storage class. 	[07]	

<p><u>Unit -5</u></p>	<p><u>Arrays.</u></p> <ul style="list-style-type: none"> ➤ Introduction. ➤ Declaration of Arrays. ➤ Accessing the Elements of an Array. • Calculating the address of Array elements. • Calculating the length of an Array. ➤ Storing values in Arrays. • Initializing Arrays during Declaration. • Inputting values from the keyboard. • Assigning values to Individual Elements. ➤ Operations on Arrays. • Traversing an Array. • Inserting an Element in an Array. • Deleting an Element from an Array. • Merging Two Arrays. • Searching for a value in an Array. ➤ Passing Arrays to functions. ➤ Two dimensional Arrays. • Declaring Two-dimensional Arrays. • Initializing Two-dimensional Arrays. • Accessing the Elements of two dimensional Arrays. ➤ Operations on Two-dimensional Arrays. 	<p>[07]</p>	
<p><u>Unit -6</u></p>	<p><u>Pointers.</u></p> <ul style="list-style-type: none"> ➤ Understanding the Computer's Memory. ➤ Introduction to pointers. ➤ Declaring pointer variables. ➤ Pointer Expressions and pointer Arithmetic. ➤ Null pointers. ➤ Passing Arguments to function using pointer. ➤ Pointers and Arrays. ➤ Passing an Array to a Function. ➤ Dynamic Memory Allocation. • Malloc () function. • Calloc () function. • Realloc () function. • Free () function. 	<p>[07]</p>	
<p><u>Unit -7</u></p>	<p><u>Structures and Unions.</u></p> <ul style="list-style-type: none"> ➤ Structures. ➤ Structure variables and Arrays. • Initialization of structure variable and Array. • Dot (•) Operator. • Assigning value of a structure to Another structure. 	<p>[04]</p>	

	<ul style="list-style-type: none"> ➤ Structure within structures. ➤ Site of () of a structure. ➤ Unions. ➤ Site of () unions. ➤ Difference between a structure and an union. ➤ Enum Data Type. ➤ Typedef Declaration. 		
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BookRecommended:

1.	Programming with C. Second Edition. Tata McGraw-Hill, 2000	-	Byron Gottfried
2.	How to solve by Computer, Seventh Edition, 2001, Prentice hall of India.	-	R.G. Dromey
3.	Programming with ANSI-C, First Edition, 1996, Tata McGraw hill.	-	E. Balaguruswami
4.	Programming with ANSI & Turbo C. First Edition, Pearson Education.	-	A. Kamthane
5.	Programming with C. First Edition, 1997, Tara McGraw hill.	-	Venugopla and Prasad
6.	The C Programming Language, Second Edition, 2001, Prentice Hall of India.	-	B. W. Kernighan & D.M.
7.	Programming in C, Vikash Publishing House Pvt. Ltd., Jungpura, New Delhi.	-	R. Subburaj
8.	Programming with C Language, Tara McGraw Hill, New Delhi.	-	C. Balagurswami
9.	Programming in C, Galgotia Publications Pvt. Ltd. Dariyaganj, New Delhi.	-	Kris A. Jamsa
10.	The Art of C Programming, Narosa Publishing House, New Delhi.	-	Jones, Robin & Stewart
11.	Problem Solving and Programming. Prentice Hall International.	-	A.C. Kenneth
12.	C made easy, McGraw Hill Book Company, 1987.	-	H. Schildt
13.	Software Engineering, McGraw Hill, 1992.	-	R.S. Pressman
14.	Pointers in C, BPB publication, New Delhi.	-	Yashwant Kanetkar

MANAGERIAL ECONOMICS

Subject Code 2026303	Theory			No of Period in one session : 50			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	100	
	03	—	—	TA	:	10	
				CT	:	20	

Rationale & Objective:

Basic aims and objective of this subject is to tell how best to achieve a firm objective in particular situation. Since it provides an intelligent understanding of the environment in which the business must operate.

This understanding enables a student to adjust in the best possible manner with external forces over which he has no control but which play a crucial role in the wellbeing of his concern

Contents: Theory		Hrs	Marks
Unit -1	Definition of Economics	(01)	
Unit -2	The role of Economist	(01)	
Unit -3	Nature and Scope of Economics	(01)	
Unit -4	Micro & Macro Economics	(01)	
Unit -5	Theory of Consumption	(01)	
Unit -6	Consumer Behavior (Marginal Utility)	(01)	
Unit -7	The law of Diminishing Marginal Utility	(01)	
Unit -8	The law of Equi. Marginal Utility	(01)	
Unit -9	Consumer's Surplus	(01)	
Unit -10	Law of Demand	(01)	
Unit -11	Price line & Equilibrium of Consumer	(01)	
Unit -12	The substitution effect & Income effect	(01)	
Unit -13	Elasticity of Demand, Giffon goods	(01)	
Unit -14	Theory of Production	(01)	
Unit -15	Theory of Production function	(01)	
Unit -16	Law of Production	(01)	
Unit -17	ISO Product Curve	(01)	
Unit -18	Linear Programming (1) Graphical Method (2) Simpler Method	(01) (01)	
Unit -19	Theory of Exchange/Product Pricing	(01)	
Unit -20	The concept of cost and curve	(01)	
Unit -21	Market & Market Structures	(01)	
Unit -22	Revenue and Revenue Curve	(01)	
Unit -23	Price under perfect Competition	(01)	
Unit -24	Price Under Monopoly	(01)	
Unit -25	Monopolistic Competition	(01)	
Unit -26	Oligopoly	(01)	
Unit -27	Public Finance	(02)	

Unit -28	Importance of Public Finance	(02)	
Unit -29	Meaning of Tax & Type of Tax	(02)	
Unit -30	Meaning of Public Debt	(02)	
Unit -31	Sources of Public Debt	(02)	
Unit -32	Budget	(02)	
Unit -33	Meaning and Importance of a Budget	(02)	
Unit -34	Balance of and Unbalanced Budget	(02)	
Unit -35	Economic System	(01)	
Unit -36	Features of Capitalist Economy	(01)	
Unit -37	Features of Socialist Economy	(01)	
Unit -38	Features of Mixed Economy	(01)	
Unit -39	Comparative Study of all the system of Economy	(01)	
Unit -40	Economic Planning	(01)	
Unit -41	Planning in an under developed Economy	(01)	
Total		50	

MANAGEMENT INFORMATION SYSTEM

Subject Code 2026304	Theory			No of Periods in One Session : 50			Credits
	No. of Periods Per Week			Full Marks		100	03
	L	T	P/S	ESE	70		
	03	-	-	TA	10		
	-	-	-	CT	20		

Rationale and Objectives:

The Systems model of management shows that Communication is needed for carrying out the managerial functions and to link the organization with its external environment. The Management Information System provides the communication link and makes managing possible.

It helps the student to know that how external information is necessary for preparing the policy and strategy of a control.

CONTENTS: (THEORY)		Hrs	Marks
UNIT – I	Understanding MIS :- - Introduction to Management Information System - Impact of MIS - Role and Importance - Managers Function - Types of computers used by Organization	[04]	
UNIT – 2	Conceptual Foundation: - - Introduction - The Decision-making Process - The Structure of Management Information System	[03]	
UNIT – 3	Kinds of Information System: - - Introduction - Types of management System - Concepts of Management Organization	[03]	
UNIT – 4	Planning and Control: - - Introduction - Differences between planning and control information	[03]	

UNIT – 5	MIS Planning and Development: - - Introduction - Planning - Development	[03]	
UNIT – 6	MIS Organization Structure :- - Introduction - MIS at Management levels - Strategic level planning - Operational level planning	[03]	
UNIT – 7	Concept and Process of Control: - - Introduction - Managerial control - Accounting and control - Major control System (traditional and modern) - Responsibility accounting	[04]	
UNIT – 8	Enterprise resources planning: - - Introduction - Basics of ERP - Benefits and challenges of Enterprise system	[03]	
UNIT – 9	Trends in MIS :- - Introduction - Decision support system (DSS) - Artificial intelligence (AI)	[03]	
UNIT – 10	Support models and knowledge management: - - Introduction - Market research methods - Ratio analysis for financial assessment - Management science models - Project planning and control models - Cost accounting system	[04]	

UNIT – 11	Organization and computer system:- - Introduction - Basics of computer system - Basics network terminology - Definition and application - The Intranet and Extranet	[04]	
UNIT – 12	Database management system :- - Introduction - Types of database users - DBMS - Designing of DBMS - The Intranet and Extranet	[03]	
UNIT – 13	Strategic management information system :- - Introduction - Background - Performance - Product differentiation and value chain - How it influences organization goals	[03]	
UNIT – 14	Security and ethical issues :- - Introduction - Control issues in Management Information System - Security hazards - Ethical issues	[03]	
	Total	[50]	

Recommended Books :-

1.	Essential of Management	-	Koontz & O'Deonnell
2.	Principles of Management	-	L. M. Prasad
3.	Introduction to Accountancy	-	T.S. Grewal
4.	Financial Management	-	Prasanna & Chandra

E-TYPING - I

Subject Code 2026305	Theory			No of Period in one session:			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	100	
	03	—	—	TA	:	70	
				CT	:	10	

E-TYPEWRITING-I (ENGLISH/HINDI)

RATIONALE

COMPUTER is used in the offices for typing letters, bills, invoices, forms, notices, reports, statements and other written forms of communication. The students of this programme must have the necessary skills to operate the key-board of computer which is having similar key positions. The proficiency in e-typing will enable the students to perform in the written communication, necessary for modern offices, efficiently and effectively. Through the series of courses in typing the necessary skills shall be developed in the students of this diploma programme.

CONTENTS: THEORY (ENGLISH)

1. E-Typewriting: -
 - Introduction and Importance of E-Typewriting.
 - Difference between manual typewriting and E-typewriting.
 - Job Opportunities.
2. Qualities required to become an efficient and effective typist
3. Basics of good e-keyboarding skills
4. Importance of Proper Physical Environment for typing work, Proper Lighting, Proper Furniture.
5. Typing Ergonomics and Positioning: -
 - Position of Monitor, Keyboard, Mouse etc.
 - Body Positioning.
6. Introduction to Keyboard:-
 - In-script, Qwerty, etc.
 - Types of Keys: Alphanumeric Keys, Punctuation Keys and Special Keys.
 - Ergonomic Keyboard.

7. Methods of Typewriting: -
 - Touch Typewriting
 - Sight Typewriting
8. Approaches to Typewriting: -
 - Vertical Approach
 - Horizontal Approach
9. Finger Placement according to Touch Typewriting: -
 - Home Row
 - Upper Row
 - Bottom Row
 - Number Row
10. Importance of Typing Rhythm
11. Use of Spacing in Punctuation Signs
12. Knowledge of various errors which may be committed in key board operation.
13. Importance of Accuracy over speed
14. Keyboarding drill exercises

Note:- Practice of typing in a word processing package, typing software and on-line.

CONTENTS: THEORY (HINDI)

टंकण विज्ञान – थ्योरी (सैद्धान्तिक)

1. टंकण विज्ञान का परिचयांकन

टाइपराइटर की उपयोगिता, महत्व और विकास ।

विभिन्न प्रकार की मशीनें – हस्तचालित मानक यंत्रा, वहनीय, ध्वनी-रहित, ब्रेल-राइटर, इलेक्टॉनिक यंत्रा, कम्प्यूटर एवं लैप-टॉप का विकास ।

2. कुजीपटल संचालक

टाइप करने की तैयारी – बैठने का ढंग।

टंकण विधियां – दृश्य एवं स्पर्श विधि।

आधार पंक्ति या दूसरी पंक्ति का अभ्यास,

तीसरी पंक्ति का अभ्यास, प्रथम या निम्न पंक्ति का अभ्यास,

संख्या या चौथी पंक्ति का संचालन,

विशेष चिहनों का प्रयोग, रोमन संख्याएं आदि का संचालन।

Books Recommended :-

1. Typewriting Made Easy For beginners by Dr. O.P. Kuthiala; Pitman Publications.
2. Typewriting Speed and Accuracy by Dr. O.P. Kuthiala; Pitman Publications.
3. Typewriting Speed and Accuracy by Dr. R.C. Bhatia, Sterling Publishers, Pvt. Ltd.
4. English Typewriting Instructor by Dr. G.D. Bisht, Published by Short hand House.
5. Typewriting Theory and Practice by Dr. R.C. Bhatia; Sterling Publishers Pvt, Ltd.

COMPUTER PROGRAMMING THROUGH 'C' LAB

Subject Code 2000306	Practical			No. of Period in one session: 50		Credits 03
	No. of Periods Per Week			Full Marks : 50		
	L	T	P/S	Internal (PA) : 15		
	—	—	06	External (ESE) : 35		

Course Learning Objectives:

This Lab course is intended to practice what is taught in theory class of 'Computer Programming' and become proficient in computer programming. Computer programming is all about regular practice. Students should work on solved and unsolved problems listed in the text books, and the problems given by the teacher. Some of the topics that should necessary be covered in lab are listed below.

Course outcomes:

Student should be able to write code snippets, and then compile, debug and execute them.

Content: Practical		Hrs	Marks
Unit – 1	Familiarization with programming environment (Editor, Compiler, etc.)		
Unit – 2	Programs using, I/O statements and various operators		
Unit – 3	Programs using expression evaluation and precedence		
Unit – 4	Programs using decision making statements and branching statements		
Unit – 5	Programs using loop statements		
Unit – 6	Programs to demonstrate applications of n dimensional arrays		
Unit – 7	Programs to demonstrate use of string manipulation functions		
Unit – 8	Programs to demonstrate parameter passing mechanism		
Unit – 9	Programs to demonstrate recursion		
Unit – 10	Programs to demonstrate use of pointers		
Unit – 11	Programs to demonstrate command line arguments		
Unit – 12	Programs to demonstrate dynamic memory allocation		
Unit – 13	Programs to demonstrate file operations		

The language of choice will be C. This is a skill course. More you practice, better it will be.

Reference Books:

1. Let Us C, Yashavant Kanetkar
2. Problem Solving and Programming in C, R.S. Salaria, Khanna Publishing House
3. C Programming Absolute Beginner's Guide, Dean Miller and Greg Perry
4. The C Programming Language, Kernighan and Ritchie, Prentice Hall of India
5. Programming in ANSI C, E. Balagurusamy, Tata McGraw-Hill
6. C Programming & Data Structures, B. A. Fouruzan and R. F. Gilberg, CENGAGE Learning.

LANGUAGE AND COMMUNICATION SKILL LAB - II

(ENGLISH+ HINDI)

Subject Code 2026307	Practical			No of Period in one session :			Credits 02
	No. of Periods Per Week			Full Marks	:	75	
	L	T	P/S				
—	—	04	Internal (PA)	:	23		
			External (ESE)	:	52		

ENGLISH

Rationale:

The primary aim of the practical of the given course is to help the students put into practice the theoretical speech of communication with a view to acquiring skill of communication for communicating effectively with their higher authorities as well be helpful to develop their personality and subsequently for a successful professional's life as an office assistant/salesman/receptionist etc.

The Vocal curriculum has therefore been designed as to meet the above requirements by bringing about a important in their method of presentation. It seeks to develop the student's power of oral communication through effective use of body language. The course will bring overall improvement in their personality through constant practice.

Objectives:

The students will be able to:

- Develop their personal traits
- Make them able to understand the conversation with their higher authorities/subordinates/other persons concerned.
- Exposure their personality effectively.
- Develop good relations/contacts with different types of persons concerned.
- Develop skill of importantly speech as well public speech.
- Develop skill of creative writing.

Contents: Practical		Hrs	Marks
Unit -1	Personal Interview		
Unit -2	Other forms of Collection or Communication		
Unit -3	Personality Development		
Unit -4	Debate Elocution and Extempore speech		
Unit -5	Practice through mock Interviews		
Unit -6	Creating Writing.		
Total			

HINDI

वृहत् आधार एवं उद्देश्य :-

प्रस्तुत पाठ्यक्रम सैद्धान्तिक पाठ्यक्रम का व्यावहारिक पक्ष है जिसमें, अभ्यास को प्रमुखता प्रदान की गयी है। सैद्धान्तिक पाठ्यक्रम द्वारा प्राप्त की गयी जानकारी का मूल्यांकन इसका मुख्य उद्देश्य है जिससे छात्रों की अभ्यास क्षमता का परिचय मिल सकता है। इस पाठ्यक्रम से छात्रों को अपनी काल्पनिक और सृजनात्मक क्षमता का विकास करने में मदद मिलेगी। मौखिक संप्रेषण एवं सृजनात्मक लेखन के अभ्यास से छात्रों के व्यक्तित्व का विकास संभव हो सकेगा।

उद्देश्य

पाठ्यक्रम के अध्ययन के पश्चात छात्रा-

- मौखिक संप्रेषण के महत्व को समझा सकेंगे।
- मौखिक संप्रेषण के प्रभाव में वृद्धि कर सकेंगे।
- सृजनात्मक लेखन के क्षेत्रा एवं महत्व से परिचित होंगे।
- व्यक्तित्व के विभिन्न पहलुओं का विकास कर सकेंगे।
- रचनात्मक क्षमता का विकास कर सकेंगे।

CONTENTS : (Practical)		Hrs
UNIT - 1	साक्षात्कार	[03]
UNIT - 2	व्यक्तित्व विकास	[03]
UNIT - 3	दूरभाष वार्तालाप	[02]
UNIT - 4	समूहिक परिचर्चा, वाद विवाद	[05]
UNIT - 5	शारीरिक भाषा एवं नेत्र संचार	[03]
UNIT - 6	पूर्वाभ्यास	[03]
UNIT - 7	भाषिक संप्रेषण: वाचन एवं श्रवण	[05]
UNIT - 8	प्रस्तुतीकरण	[02]
UNIT - 9	व्यवहार कौशल	[03]

उपयोगी पुस्तकें

1. हिन्दी वाङ्मय बीसवी शदी, पुस्तक मंदिर आगरा
 2. जनसंचार विविध आयाम, राधाकृष्ण प्रकाशन, दिल्ली
 3. संचार और विकास, प्रकाशन विकास, सूचना एवं प्रसारण मंत्रालय, भारत सरकार, नई दिल्ली
 4. फीचर लेखन, प्रकाशन विकास सूचना एवं प्रसारण मंत्रालय, भारत सरकार, नई दिल्ली
 5. अशोक के फूल, लोकभारती प्रकाशन, इलाहाबाद
 6. Fearless and Flowless Public Speaking with power, polish and pizaaz, S. Chand & Co.
- डॉ० नागेन्द्र (संपादक)
– बृजमोहन गुप्त
– श्यामाचरण दूबे
– प्रेमनाथ चतुर्वेदी
– आचार्य हजारी प्रसाद द्विवेदी
- Mary Ellen Droummonnd

E-TYPING LAB - I

Subject Code 2026308	Practical			No of Period in one session : 60			Credits 01
	No. of Periods Per Week			Full Marks			
	—	—	02	Internal (PA)	:	15	
				External (ESE)	:	35	

Computer typing Practice of Passages from books magazines, Journal and newspaper for enhancing its speed and accuracy.

RATIONALE

E-TPEWRITING-I(ENGLISH/HINDI)

COMPUTER is used in the offices for typing letters, bills, invoices, forms, notices, reports, statements and other written forms of communication. The students of this programme must have the necessary skills to operate the key-board of computer which is having similar key positions. The proficiency in e-typing will enable the students to perform in the written communication, necessary for modern offices, efficiently and effectively. Through the series of courses in typing the necessary skills shall be developed in the students of this diploma programme.

CONTENTS : PRACTICAL (ENGLISH)

1. E-Typewriting :-
 - Introduction and Importance of E-Typewriting.
 - Difference between manual typewriting and E-typewriting.
 - Job Opportunities.
2. Qualities required to become an efficient and effective typist
3. Basics of good e-keyboarding skills
4. Importance of Proper Physical Environment for typing work, Proper Lighting, Proper Furniture.
5. Typing Ergonomics and Positioning :-
 - Position of Monitor, Keyboard, Mouse etc.
 - Body Positioning.
6. Introduction to Keyboard :-
 - In-script, Qwerty, etc.
 - Types of Keys : Alphanumeric Keys, Punctuation Keys and Special Keys.
 - Ergonomic Keyboard.
7. Methods of Typewriting :-
 - Touch Typewriting

- Sight Typewriting
8. Approaches to Typewriting :-
 - Vertical Approach
 - Horizontal Approach
 9. Finger Placement according to Touch Typewriting :-
 - Home Row
 - Upper Row
 - Bottom Row
 - Number Row
 10. Importance of Typing Rhythm
 11. Use of Spacing in Punctuation Signs
 12. Knowledge of various errors which may be committed in key board operation.
 13. Importance of Accuracy over speed
 14. Keyboarding drill exercises

Note :- Practice of typing in a word processing package, typing software and on-line.

LIST OF PRACTICALS

1. Operation of the key Board and location of various keys on the computer.
2. Margin fixing.
3. Paragraphing.
4. Line Space.
5. Operation of home keys with repetitive exercises.
6. Operation of top row keys with repetitive exercises.
7. Operation of bottom row keys with repetitive exercises.
8. Operation of shift Keys.
9. Speed practice starting from words, sentences to paragraphs.
10. Spacing after punctuation.

BTE Examination Scheme :-

(1) Practical – Accuracy Passage for typing (200 Words)

Books Recommended (English)

1. Typewriting Made Easy For beginners by Dr. O.P. Kuthiala; Pitman Publications.
2. Typewriting Speed and Accuracy by Dr. O.P. Kuthiala; Pitman Publications.
3. Typewriting Speed and Accuracy by Dr. R.C. Bhatia, Sterling Publishers, Pvt. Ltd.
4. English Typewriting Instructor by Dr. G.D. Bisht, Published by Short hand House.
5. Typewriting Theory and Practice by Dr. R.C. Bhatia; Sterling Publishers Pvt, Ltd.

CONTENTS : PRACTICAL (HINDI)

टंकण विज्ञान – थ्योरी (सैद्धान्तिक)

1. टंकण विज्ञान का परिचयांकन

टाइपराइटर की उपयोगिता, महत्व और विकास।

विभिन्न प्रकार की मशीनें – हस्तचालित मानक यंत्रा, वहनीय, ध्वनी-रहित, ब्रेल-राइटर, इलेक्टॉनिक यंत्रा, कम्प्यूटर एवं लैप-टॉप का विकास।

2. कुंजीपटल संचालक

टाइप करने की तैयारी – बैठने का ढंग।

टंकण विधियां – दृश्य एवं स्पर्श विधि।

आधार पंक्ति या दूसरी पंक्ति का अभ्यास,

तीसरी पंक्ति का अभ्यास, प्रथम या निम्न पंक्ति का अभ्यास,

संख्या या चौथी पंक्ति का संचालन,

विशेष चिह्नों का प्रयोग, रोमन संख्याएं आदि का संचालन।

3. सुंदर प्रस्तुतीकरण के नियम

हाशिए छोड़ना – समतल, बाएं, दाएं एवं ध्वमुखी हाशिये छोड़ना,

शीर्षक का केन्द्रण, उप-शीर्षक का केन्द्रण, पंक्ति अंतरण,

व्याकरणिक चिह्नों का प्रयोग एवं नियम, पैराग्राफक/ अनुच्छेद टाइप करना, पत्रा एवं नोट टाइप करना।

शब्दों का विभाजन, गति गणना,

सारणी टाइप करने की विधिया।

पार्ट-I टंकण विज्ञान (हिन्दी)-

1. बैठने की सही स्थिति सिखाना और टंकण के महत्व, गति एवं शुद्धता के बारे में समझाना। कुंजीपटल का संचालन स्पर्श विधि या टच मैथड से सिखाना। आधार पंक्ति एवं परी संख्या का सही अभ्यास कराना। निम्न पंक्ति एवं संख्या पंक्ति पिफट कुंजी का संचालन। गति बढ़ाना और शुद्धता पर ध्यान देना।

2. हाशिये लगाना, बाएं, दायें हाशिये लगाना, पंक्ति अंतरण करना, शीर्षक, उप-शीर्षक का केन्द्रण करना एवं

व्याकरणिक चिह्नों का प्रयोग। शब्दों के विभाजन, पैराग्राफक टाइप करने एवं विशेष चिह्नों का प्रयोग एवं अभ्यास करना।

3. सारणीयन— सारणी टाइप करना, कॉलम बनाना, उनका सैटिंग करना। साधारण या व्यक्तिगत पत्रा टाइप करना और सही पेज में पफॉरमेट करना।

परीक्षा एवं मूल्यांकन विधि—व्यावहारिक परीक्षा प्रशिक्षक द्वारा ली जाएगी।

1. 200 शब्दों का या 1000 स्टोक्स का एक अनुच्छेद 20 श.प्र.मि. की गति से 10 मिनट तक टाइपराइटर/कम्प्यूटर पर टाइप करना होगा। 20
2. व्यक्तिगत या आवेदन-पत्रों को सही प्रारूप में 20 मिनट में कम्प्यूटर पर टाइप करना होगा और उसे पलापी, सीडी या पैन ड्राइव पर सेव करके उसका प्रिंट लेना होगा। 20
3. फ्ले से उपलब्ध फाइलों को ढूँढकर उनमें परिवर्तन या संशोधन करना होगा। 20
4. वार्षिक व्यावहारिक कार्य की फाइल रखनी होगी जिसे देखकर परीक्षक प्रदान करेगा। 10

LANGUAGE & COMMUNICATION SKILL – II (ENGLISH + HINDI)
& GROUP DISCUSSION -TW

Subject Code 2026309	Term Work					Credits 02	
	No. of Periods Per Week			Full Marks	:		50
	—	—	03	Internal (PA)	:		15
			External (ESE)	:	35		

Rationale:

The Sessional curriculum of given course has therefore been so designed as to meet the requirements by bringing about an overall improvement in their way of presentation. It seeks to develop the student's power of oral and written communication through effective use of various worksheets and exercises given in the curriculum.

Objectives:

The students will be able to:

- Develop their personal traits.
- Make them able to understand the conversation with their higher authorities/subordinates/other persons concerned.
- Exposure their personality effectively.
- Develop good relations/contacts with different types of persons concerned.
- Develop skill of importantly speech as well public speech.
- Develop skill of creative writing.

S.No.	Topics	Periods
1	Writing Effective bio-data/C.V.	(03)
2	Writing good resume, post group discussion/Interview.	(02)
3	Exercise on describe ownself.	(02)
4	Communication Profile.	(02)
5	Exercise on overcoming fears and building personal power.	(05)
6	Assessment of Voice.	(05)
7	Appearance Check list presentation.	(05)
8	Exercise on organising group discussion.	(10)
9	Practice on Written communication	(10)
	(a) Letter Writing	

- (b) Precis Writing
- (c) Essay Writing
- (d) Reportage Writing
- (e) Feature Writing

Total :

(50)

Hindi

वृहत् आधार एवं उद्देश्य :

प्रस्तुत पाठ्यक्रम का उद्देश्य छात्रों की वाचन कला और क्षमता का विकास करना है। विभिन्न अभ्यासों के द्वारा छात्र अपनी लिखित और मौखिक संप्रेषण को प्रभावशाली बना सकेंगे। समाचार पत्रों और पत्रिकाओं में प्रकाशित होने वाले विभिन्न विषयों से संबंधित लेखों का अध्ययन भी छात्रों के लिए लाभदायक होगा।

उद्देश्य :

पाठ्यक्रम के अध्ययन के पश्चात छात्रा—

- कल्पना-शक्ति को विकसित कर सकेंगे।
- रचनात्मक क्षमता को विकसित कर सकेंगे।
- मौखिक संप्रेषण को अधिक प्रभावशाली बना सकेंगे।
- लेखन कौशल का परिचय दे सकेंगे।
- भाषा और शैली को पठनीय एवं रचनात्मक बना सकेंगे।

क्रम सं०	विषय	व्याख्यान
1.	व्यक्ति-परिचय	[02]
2.	शिष्टाचार	[03]
3.	शारीरिक भाषा	[05]
4.	समूहिक परिचर्चा, वाद-विवाद	[05]
5.	निबंध लेखन	[05]
6.	रिपोर्ताज	[03]
7.	फीचर	[02]
8.	पत्रा-पत्रिकाओं एवं विभिन्न पुस्तकों का अध्ययन	[25]

परीक्षा का आयोजन

सत्रिक परीक्षा हेतु आर्थिक, सामाजिक, सांस्कृतिक, विज्ञान, पर्यावरण एवं खेल-कूद जैसे क्षेत्रों से विषय का चयन कर, सामूहिक परिचर्चा करना, वाद-विवाद करना, निबंध रिपोर्ताज एवं फीचर लेखन का अभ्यास करना और संबंधित अभिलेख प्रस्तुत करना छात्रों के लिए अनिवार्य होगा।

GROUP DISCUSSION

Group Discussion involves coming together of a number of persons with varying ideas and points of view to discuss on certain topic or come with a view to solving a problem they have in common. To make group discussion effective following points have to be remembered:

ENGLISH

CONTENTS : PRACTICAL		Hrs	Marks
Unit -1	Discussion must be goal directed.		
Unit-2	Every member must be responsible for group effectiveness.		
Unit-3	Every member must aim for cooperation & have positive attitude: conflict should be avoided.		
Unit-4	Effective discussion requires leadership.		
Unit-5	Elements/ features of interaction in a successful group discussion: Verbal communication – talking & listening		
Unit-6	Non-verbal behaviour – facial gestures, physical position, eye contact, tone of voices convey significant messages.		
Unit-7	Norms & Conformity: being polite, listening to others points & views, not being too over hearing, giving others a fare chance to participate.		
Unit-8	Power: through efficiency & competition a candidate is able to impress the group & garner support of them. So participants in a group speak more to a member who demonstrates power.		
Unit-9	Cohesion: It comes only when members are willing to sacrifice personal opinions to uphold group norms or when there are shared needs, intents or goals.		
Unit-10	Discussion making styles: a) Consensus b) Negotiations c) Voting		

समूहिक परिचर्चा

समूहिक परिचर्चा अनेक व्यक्ति को विविध विचारों एवं दृष्टिकोण के साथ किसी एक निर्धारित विषय पर विमर्श अथवा किसी समान्य समस्या के समाधान के लिए आयोजित किया जाता है। इस प्रकार की परिचर्चा में प्रभावशाली प्रदर्शन के लिए भाषा पर नियंत्रण अनिवार्य है ताकि विचारों की अभिव्यक्ति समुचित ढंग से की जा सकें। प्रभावशाली मौखिक संप्रेषण के लिए शब्दों का समुचित प्रयोग एवं सही उच्चारण भी अत्यंत महत्वपूर्ण है। वर्तमान समय में नियुक्तियों के लिए सामूहिक परिचर्चा अभ्यर्थी के वृत्तित्व के मूल्यांकन में विशिष्ट महत्व रखता है। छात्रों को इस विषय में जागरूक एवं प्रशिक्षित करने हेतु पाठ्यक्रम में सम्मिलित किया गया है :-

Hindi

CONTENTS : PRACTICAL

Unit -1	परिचर्चा का लक्ष्य
Unit -2	समूहिक दायित्व
Unit -3	सकारात्मक दृष्टिकोण के साथ सहभागिता
Unit -4	परिचर्चा के लिए आवश्यक नेतृत्व क्षमता
Unit -5	पारस्परिक संप्रेषण कौशल
Unit -6	भाषिक संप्रेषण : वाचन एवं श्रवण
Unit -7	शारीरिक भाषा का प्रयोग : मुखमुद्रा, भाव भंगिमा एवं नेत्र संचार द्वारा संप्रेषण
Unit -8	सौम्य व्यवहार, श्रवण क्षमता, स्वस्थ प्रतियोगिता
Unit -9	समूचित सहभागिता, एकजुटता, संबद्धता
Unit -10	आम सहमति, सर्वसम्मति

PYTHON / Others -TW

Subject Code 2000310	Term Work			Full Marks			Credits
	No. of Periods Per Week			Internal (PA)			01
	L	T	P/S	External (ESE)			
	—	—	02	:	:	:	
			25				
			07				
			18				

CONTENTS	
UNIT – 01	Write a program to demonstrate basic data type in python.
UNIT – 02	Write a program to compute distance between two points taking input from the user (Pythagorean Theorem)
UNIT – 03	Write a python program Using for loop, write a program that printsout the decimal equivalent of $1+\frac{1}{2}+\frac{1}{3}+\dots+\frac{1}{n}$
UNIT – 04	Write a Python program to find first n prime numbers. Write a program to demonstrate list and tuple in python.
UNIT – 05	Write a program using a for loop that loops over a sequence. Write a program using a while loop that asks the user for a number and prints a countdown from that number to zero.
UNIT – 06	Write a Python Program to add matrices. Write a Python program to multiply matrices.
UNIT – 07	Write a Python program to check if a string is palindrome or not.
UNIT – 08	Write a Python program to Extract Unique values dictionary values
UNIT – 09	Write a Python program to read file word by word Write a Python program to Get number of characters, words.
UNIT – 10	Write a Python program for Linear Search