PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY (DIPLOMA STUDIES)

STUDENT INFORMATION BOOK

DEPT. OF COMPUTER ENGINEERING

SEMESTER 1ST

DIVISION QB

COMPUTER

2022-23

SARASWATI VANDANA(DAILY PRAYER)

याकुन्देन्दुतुषारहारधवलायाशुभ्रवस्त्रावृता
यावीणावरदण्डमण्डण्डतकरायाश्वेतपद्मासना।
याब्रह्माच्युतशंकरप्रभृततभदेवैःसदापूतिता
सामांपातुसरस्वततभगवतीतनैःशेषिाड्यापहा॥१॥

LIMDA TA. WAGHODIA DIST. VADODARA PH. 02668-260341

PARUL INSTITUTE OF ENGINEERING AND TECHNOLOGY

COMPUTER ENGINEERING

INDUCTION PROGRAM SCHEDULE

DIV: B				ROOM:302
DATE & DAY	9:30 TO 10:30	10:30 TO 11:30	11:30 T0 12:30	12:30 TO 1:30
21-07-2022	MATHS (PRM)	CP (LR)	RECESS	HOD Presentation
23-07-2022	FEEE (PV)	DOCUMENT VERIFICATION AND CHECK ELIGBITY(DM,PRM))	RECESS	LIBRARY(KIT AND I-CARD (DM,PRM)
26-07-2022	ES (BK)	CS (RR)	RECESS	ICE BREAKING BY CDC
28-07-2022	MATHS (PRM)	CP (LR)	RECESS	EDC AND LIBRARARY SESSION
30-07-2022	FEEE (PV)	CS	RECESS	CAMPUS VISIT (DM,PRM)
02-08-2022	ES (BK)	CS	RECESS	CELLS INTRODUCTION SESSION IN CENTAL SEMINAR HALL
04-08-2022	MATHS (PRM)	CP (LR)	RECESS	MODEL MAKING(DM,VP)
06-08-2022	FEEE (PV)	CS	RECESS	SRC ACTIVITY (DM)
09-08-2022	ES (BK)	CS	RECESS	Cells Introduction session in Central seminar hall
11-08-2022	MATHS (PRM)	CP(LK)	RECESS	ICE BREAKING BY CDC
13-08-2022	FEEE (PV)	CS	RECESS	ASH DEPT ACTIVITY(SDP/JKP)

Principal Details:

Name of Principal	Mobile No	Email ID
Dr. Ruchi Shrivastava	9909027481	Ruchi.shrivastava@paruluniversity.ac.in

Head of Department Details:

Name of Principal	Mobile No	Email ID
Prof. Hetal Bhaidasna	9033822802	Hetal.bhaidasna@paruluniversity.ac.in

MFT Detail

Sr. No	Name of Faculty	Mobile No	Email ID	Division
1	Mrs. Deepika Makwana	6354758616	Deepika.makwana23728@paruluniversity.ac.in	QB
2	Mrs. PRIYANK MAKWANA	9510295239	Priyank.makwana12439@paruluniversity.ac.in	

Subject Teacher Detail

Sr. No	Subject Name	Faculty Name
1	Computer Programming	Ms. PRIYANGI MEWAWALA
2	Mathematics	Mr. DIVYESH KACHHADIYA
3	Communication Skill	Ms. ROHIT RAVAL
4	Fundamental of electrical and electronics engineering	Ms. PURVESH VALAND
5	Environmental Science	Ms. BHGEYESHREE KAMDOI

Department Faculty Detail

Sr No.	Name	Contact No	Mail Address	Photo
1	Prof. Hetal Bhaidasna(HOD)	9033822802	hetal.bhaidasna@paruluniversity.ac.in	
2	Miss. Kajol Patel	9426271905	kajolpatel12633@paruluniversity.ac.in	
3	Mrs. Kinnari Mishra	9586794434	kinnari.mishra12751@paruluniversity.ac.in	
4	Miss. Rahenaaz Pathan	9558978455	rahenaazbanu.pathan17716@paruluniversity .ac.in	
5	Miss. Mansi Vegad	9327566453	mansi.vegad18564@paruluniversity.ac.in	

6	Mrs. Vedanti Patel	6354608170	Vedanti.patel21141@paruluniversity.ac.in	
7	Miss. Mansi Rana	7046500974	Mansi.rana21272@paruluniversity.ac.in	
8	Mr. Shakil Saiyad	9427891985	Shakilmahmad.saiyad22285@paruluniversity.ac.in	
9	Miss. Shivani Mistry	9714380018	Shivani.mistry23232@paruluniversity.ac.in	
10	Mr. Parth Sharma	9898816412	Parth.sharma23499@paruluniversity.ac.in	

11	Mrs. Priyangi Mevawala	9313194647	Priyangi.mevawala23895@paruluniversity.ac.in	
12	Miss. Vishva Padriya	8849549903	Vishva.padriya23896@paruluniversity.ac.in	
13	Miss. Sarthavi Parmar	7228010743	Sarthavi.parmar23897@paruluniversity.ac.in	
14	Mrs. Deepika Makwana	6354758616	Deepika.Makwana23728@paruluniversity.ac.in	
15	Mr. Romit Dangodara	7265945235	Romit.dangodara23907@paruluniversity.ac.in	
16	Mr. Devansh Parikh	7490991869	Devansh.parikh24160@paruluniversity.ac.in	

17	Mr. Shailash Parmar	9724764075	shailesh.parmar24291@paruluniversity.ac.in	

DE COMPUTER ENGINEERING SEM-1

TEACHING SCHEME

Sr. No.	Subject Code	Name of Subject	Credit	Lec	Lab	Tut	INTERNAL			EXTERNAL		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total
							T	P	CE	T	P	Int. + Ext	Int. + Ext	
1	3605101	Environmental Science	0	2	-	-	20	-	20	0	-	16	-	40
2	3606106	Introduction to IT Systems Lab	2	-	4	-	-	100	-	-	0	-	40	100
3	3606107	Computer Programming	2	2	-	-	20	-	20	60	-	40	-	100
4	3606108	Computer Programming Lab	2	-	4	-	-	100	-	-	0	-	40	100
5	3607151	Fundamentals of Electrical and Electronics Engineering	3	2	-	1	20	-	20	60	-	40	-	100
6	3607152	Fundamentals of Electrical and Electronics Engineering Lab	1	-	2	-	-	50	-	-	0	-	20	50
8	3691101	Mathematics - I	3	2	-	1	20	-	20	60	-	40	-	100
9	3693103	Communication Skills - I	1	1	-	-	20	-	20	60	-	40	-	100

Environmental Science (03605101)

Type of Course: Diploma-PU(wef-2020)

Prerequisite: Zeal to learn the subject

Rationale: The course is designed to give developers a general awareness of these and related issuesso that every student will start acting as a responsible citizen to make the country and the world a betterplace to live in.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/	Lab Hrs/		T	P	T	CE	P	
2	-	-	0	0	-	20	20	-	40

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Contents:

Sr.	Topic	Weightage	Teaching Hrs.
1	**Ecosystem**: Structure of ecosystem, Biotic & Abiotic components, Food chain andfood web Carbon, Nitrogen, Sulphur, Phosphorus cycle. Global warming - Causes, effects, process, Green House Effect, Ozone depletion.	15%	3
2	**Air and Noise Pollution**: Definition of pollution and pollutant, Natural and manmade sources ofair pollution (Refrigerants, I.C., Boiler). Air Pollutants: Types, Particulate Pollutants: Effects and control (Bag filter, Cyclone separator,Electrostatic Precipitator). Gaseous Pollution Control: Absorber, Catalytic Converter, Effects of air pollution due to Refrigerants, I.C., Boiler, Noise pollution: sources of pollution, measurement of pollution level, Effects of Noise pollution,Noise pollution (Regulation and Control) Rules, 2000.	22%	6
3	**Water and Soil Pollution**: Sources of water pollution, Types of water pollutants, Characteristics ofwater pollutants Turbidity, pH, total suspended solids, total solids BOD and COD: Definition, calculation. Waste Water Treatment: Primary methods: sedimentation, froth floatation, Secondary methods: Activated sludge treatment, Trickling filter, Bioreactor, Tertiary Method:Membrane separation technology, RO (reverse osmosis), Causes, Effects and Preventive measures of Soil Pollution: Causes-Excessive use of Fertilizers, Pesticides and Insecticides, Irrigation, E-Waste.	24%	8

4	**Renewable Sources of energy**: Solar Energy: Basics of Solar energy. Flat plate collector (Liquid & Air). Theory of flat plate collector.Importance of coating. Advanced collector.Solar pond. Solar water heater, solar dryer.Solar stills. Biomass: Overview of biomass as energy source. Thermal characteristics of biomass as fuel. Anaerobic digestion. Biogas production mechanism. Utilization and storage of biogas. Wind energy: Current status and future prospects of wind energy. Wind energy in India. Environmental benefits and problem of wind energy. New Energy Sources: Need of new sources. Different types new energy sources. Applications of (Hydrogen energy, Ocean energy resources, Tidal energy conversion.)Concept, origin and power plants of geothermal energy.	24%	8
5	**Solid Waste management**: Solid waste generation- Sources and characteristics of : Municipal solidwaste, E- waste, biomedical waste.Metallic wastes and Non-Metallic wastes (lubricants, plastics, rubber) from industries.Collection and disposal: MSW (3R, principles, energy recovery, sanitary landfill), Hazardous waste.	15%	3

*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Reference Books:

1. Principles of Solar Engineering
   Yogi Goswami D., Frank Kreith, Jan F. Kreider; Taylor & Francis, 2003; Second
2. Environmental Studies
   M.P. Poonia, S.C. Sharma; Khanna Publishing House, NewDelhi; 2017
3. Renewable Energy Sources
   Twidell J.W. and Weir. A; EFN Spon Ltd
4. Environmental Sciences
   Daniel B Botkin & Edward A Keller,; John Wiley & Sons
5. Air Pollution
   M. N. Rao and H. V. N. Rao; Tata McGraw-Hill Publishing Company
6. Environmental Pollution Control Engineering
   Rao C.S; 2nd edition
7. Solid Waste Treatment and Disposal
   G. Tchabanoglous; McGraw Hill Pub.

Course Outcome:

After Learning the course the students shall be able to:

At the end of the course, the student will be able to

1. Understand the ecosystem and terminology and solve various engineering problems applying
2. Ecosystem knowledge to produce eco – friendly products.
3. Understand the suitable air, the extent of noise pollution, and control measures and acts.
4. Understand the water and soil pollution, and control measures and acts.
5. Understand different renewable energy resources and efficient process of harvesting.
6. Understand solid Waste Management, ISO 14000 & Environmental Management

DE COMPUTER SEM-1 DETAIL SYLLABUS
Introduction to IT System(03606106)

Type of Course: Diploma

Prerequisite: Basic Knowledge of computer

Rationale: This course aims to teach students basics of computer including hardware and software.

Teaching Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/	Tut Hrs/	Lab Hrs/ Week		T	P	T	CE	P	
-	-	4	2	-	-	-	-	100	100

Contents:

Unit No.	Topic	Teaching Hrs.	Weightage
1.	**Basic Internet skills:** General understanding of various computer hardware components, input devices, output devices, storage devices. Email. Google group, Internet, web browser, web site	04	15%
2.	**OS Installation** (Linux and MS Windows), Unix Shell and Commands.	04	15%
3.	**HTML4 and CSS:** Basic HTML4 Tags, Making basic personal webpage, CSS, list.	12	40%
4.	**Office Tools:** MS Word, MS PowerPoint, MS Excel, MS Access	08	30%

***CE:** It Consists of Assignment /Seminar/Presentation/Quiz/Surprise Test (Summative/MCQ) etc.

Reference Books:

1. "Computer Fundamentals" by P K Sinha
2. "Basic Computer Course Made Simple" by Satish Jain
3. "Basic Computer Engineering" by Sanjay Silakari and Rajesh K Shukla.
4. HTML & CSS: The Complete Reference, Fifth Edition (Complete Reference Series) by Thomas Powell Paperback.

Course Outcome:

After learning the course the students should be able to

1. Know about different computer components& different types of memory
2. Create excel sheet, power point, word, access database etc.
3. Use internet effectively
4. Create dynamic webpages including style sheet
5. Comfortably work on computer, install and configure OS, assemble a PC and connect it to external devices, write documents, create worksheets, prepare presentations, protect information and computers from basic abuses/attacks

List of Practical:

1 Describe below components with its working.
1. CPU
2. GPU
3. Motherboard

2 Give the explanation of computer storage devices.
1. Hard Disc Drive
2. Flopy Disc
3. HDD
4. USB Flash Drive
5. Compact Disc
6. DVD
7. RAM
8. ROM

3 Write down working of input devices.
1. Keyboard
2. Mouse
3. Scanner

4 Write down working of output devices.
1. Printer
2. Monitor
3. Projector

5 Write a practical for creating email. Explain all the steps with its screen shots.

6 Create an email id and perform the following
1. Write an email and inviting your family
2. Create your own signature and add it to the email message
3. Send the Email to at least 4 of your family members
4. Add your father Email id in CC field and mother Email id in BCC field

7 Make a Google group of at least 15 of your classmates and share a spreadsheet and invite them to enter their details.

8 Install Windows 10 OS. List out installation steps with proper screenshots.

9 Install Linux OS. List out installation steps with proper screenshots.

10 List out different OS. Which OS is mostly used in now a days? What are the uses of OS?

11 Explain basics of UNIX OS.
1. Structure of UNIX OS
2. UNIX Kernal
3. Shell

12 Explain following commands for LINUX OS.

Cd, ls, cat, touch, mkdir, pwd, echo, rmdir, mv, rm, chmod, wc

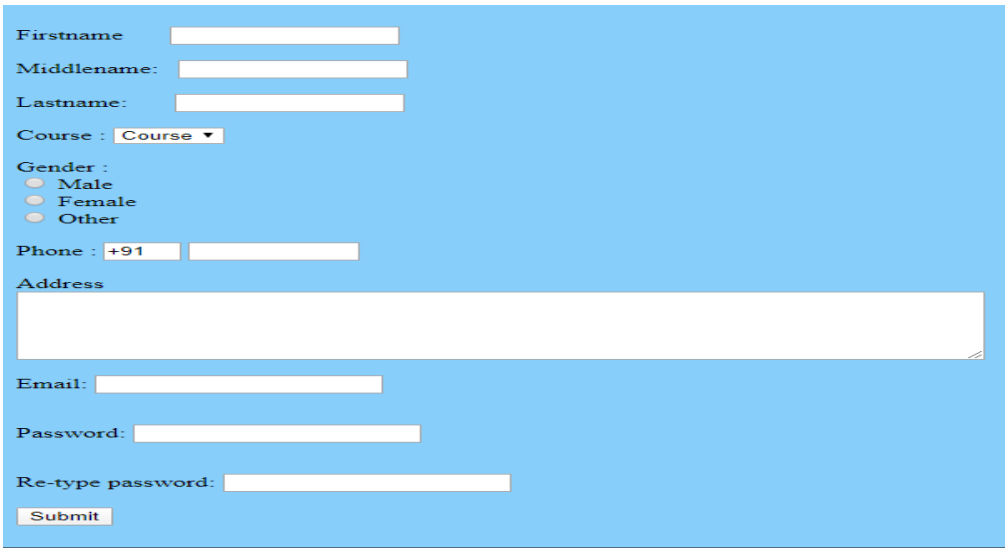
13 Write html code to display “Hello World” using <H1> to <H6> tags. Set color Red and setalignment Center.

14 Write HTML code to create a table for student marksheet.

Name	Maths	IIT	Physics	ACP	CS	Total
Vedanti	45	50	49	35	41	220
Mansi	44	40	43	45	35	207
Amir	43	35	47	39	49	213
Rahenaaz	46	42	57	38	47	230
Hetal	47	41	45	50	46	229

Apply - center alignment, height : 60%, width :70%, background color: Light sky blue, bordercolor: pink and give the caption “STUDENT MARKSEET”.

15 Write HTML code to create a simple registration form.



16 Write HTML code for creating Restaurant menu using List(OL, UL, DL)

17 Design the webpage to display your college with hyperlink.

18 Write HTML code to print following.

11. Animal
    Cow ☐
    Cat ☐
    Lion ☐

12. Colors
    Red ●
    Green ●

19 Display your family information detail with background color and other formatting using CSS.

Background color: light green
Text: blue
Title: family information

20 Create a webpage which show the use of all types of borders in single page using CSS.

1. No top border
2. Dotted top border
3. Dashed top border
4. Solid top border
5. Double top border

21 Create a sticky social media bar using HTML and CSS.

22 Prepare a table for student mark sheet using MS Excel. Containing Student Name, 5 subject name, Total and perform following operation.

1. Percentage
2. Sorting
3. Result with grading
4. Pass/fail

23 Create a database for student details in MS Excel, containing student name, parent name, student contact no, student whatsapp no, parent contact no, parent whatsapp no, div and branch.

24 Prepare a PowerPoint Presentation to describe yourself-family information, achievement, hobbies, etc.

25 Prepare PowerPoint Presentation of your favorite movie using animation.

26 Write a letter to your institute about 300 words and perform following functions

1. Set Times New Roman font
2. Set size 14
3. Title of college is Bold and Center
4. Justify a paragraph
5. Use format painter to format other paragraph
6. Use 1.5 line spacing in each paragraph

27 Create certificate in MS Word for student achievement.

28 Create 5 page report for IIT subject and apply following

1. Insert header and footer
2. Insert watermark in first page of report
3. Insert page no
4. Insert logo of PU in first page
5. Insert border in each page

29 Create 2 page news letter's with 2 columns text.

1. Set the background color light sky blue
2. Give the document title
3. Add date and time in header

30 Create a word file for your resume, containing

1. Personal details
2. Education details
3. Experience
4. Achievement
5. Objective
6. Internship
7. Key skills

Computer Programming (03606107)

Type of Course: Diploma-PU(wef-2022), Int. BTech

Prerequisite: Basic knowledge of Computer

Rationale: This course aims to teach students advanced knowledge of computer programming.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
LectHrs/ Week	Tut Hrs/	Lab Hrs/		T	P	T	CE	P	
2	-	-	2	60	-	20	20	-	100

Lect- Lecture,**Tut** - Tutorial, **Lab** - Lab, **T** - Theory,**P**- Practical, **CE**- CE, **T** - Theory,**P**- Practical

Contents:

Sr.	Topic	Weightage	Teaching Hrs.
1	**UNIT-1 Basics of Algorithm and Flowchart Development**: Introduction of algorithm, General approaches in Algorithm Design, Advantages and Disadvantages of Algorithm, Description of Flowchart, Importance of Flowchart, Symbols of Flowchart, Structure of flowchart, Limitations of Flowchart.	10%	3
2	**UNIT-2 Fundamental of 'C':** Introduction of Structured programming Language, General structure of 'C' program, Standard Directories, Benefits of C Language, Character Set ,Tokens of C language, Keywords and Constant, Identifier and Variable, Data Types used in C language, Rules for declaring variables, Declaration & Initialization, Dynamic Initialization, Type Conversions and modifiers, use of constant and volatile variable, Types of Comments in C Input & Output Statements in C language, Write & Compile C program, Execution of C program.	20%	5
3	**UNIT-3 Types of Operator and Expression:** Define Operator, Properties of operator, Types of Operators, Arithmetic operator, Relational operator, Logical operator, Bitwise operator, Assignment operator, Conditional operator, Misc operator: Turnery operator, Size of Operator, operator precedence.	20%	6
4	**UNIT-4 Decision making in C:** Introduction of conditional and unconditional branching, Types of conditional branching, If-else statement, Nested If-else statement, If-else–if Ladder statement, and Switch statements.	25%	7
5	**UNIT -5 Loop control statements in C language:** Introduction of Loop, Types of Loop, For Loop, While Loop, Do While Loop, Nested for Loop, Infinite Loop, Unconditional Statements: break statement, continue statement, goto statements	25%	7

*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Reference Books:

1. Programming in ANSI C (TextBook)
   Balaguruswami E.; Tata McGraw-Hills publication,; Latest
2. Programmingin 'C'
   Kamthane,A.N;Pearson,2012
3. Let us 'C'
   KanetkarYashavant; BPB publications, Latest Edition

Course Outcome:

After learning the course the students shall be able to:

1. Perform various Algorithms.
2. Perform various Flowcharts.
3. Computationally formulate basic problems and write code snippets to execute them.
4. Focus of the course as mentioned above should be on example-based learning.
5. Use an operator, loop and conditional statements

Computer Programming Lab (03606108)

Type of Course: Diploma-PU(wef-2022), Int. BTech

Prerequisite: Basic knowledge of Computer

Rationale: This course aims to teach students advanced knowledge of computer programming.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/	Tut Hrs/	Lab Hrs/ Week		T	P	T	CE	P	
-	-	4	2	-	0	-	-	100	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Reference Books:

1. Programming in 'C'
   Kamthane,A.N; Pearson,2012
2. Let Us C
   Yeshavant Kanetkar; BPB Publications
3. Programming in ANSI C (TextBook)
   Balaguruswami E.; Tata McGraw-Hills publication, Latest

Course Outcome:

After learning the course the students shall be able to:

1. Perform various Algorithms.
2. Perform various Flowcharts.
3. Computationally formulate basic problems and write code snippets to execute them.
4. Focus of the course as mentioned above should be on example-based learning.
5. Use an operator, loop and conditional statements.

List of Practical:

Sr. No.	PRACTICAL TITLE
Practical 1	1. Draw Flow Chart and write algorithm to add two numbers. 2. Draw Flow Chart and write algorithm Convert Temperature from Fahrenheit (°F) to Celsius (°C). 3. Draw Flow Chart and write algorithm to find maximum (or minimum) out of three numbers. 4. Draw Flow Chart and write algorithm Whether A Student Passed the Exam or Not. 5.Draw Flow Chart and write algorithm Calculate the Interest of a Bank Deposit.
Practical 2	1. Make C Program to display your Full Name on the monitor. 2. Perform the basic Arithmetic operation for the any two Numbers given by the User. 3. C Program to convert temperature from degree centigrade to Fahrenheit 4. C Program to shows how to use const to declare constants of different data types. 5. Make C Program to Calculate Area and Circumference of Circle. 6. C Program to Calculate Area of Scalene Triangle.
Practical 3	1. Write a C program to read two numbers and print maximum and minimum of them. 2. Write a C program to implement implicit type conversion. 3.Calendar Program in C Programming Language: Display Day of the month. 4. C Program to reverse a given number 1234. 5. C Program to Create Simple Calculator.
Practical 4	1. Enter the birth year and check whether the person is born in leap year or not. 2. C Program to generate the Fibonacci Series starting from any two numbers. 3. Write a program to input name, marks of 5 subjects of a student and display the name of the student, the total marks scored, percentage scored and the class of result 4. Write a C program which will invoke the command processor to execute a command.
Practical 5	1.Write a C program to read ages of two person and check whether they are of same age or not. 2. Write a program to check whether two numbers are equal or not. 3. Write a program to check whether a given number is greater or smaller. 4. Write a program to print smallest number from 3 numbers.
Practical 6	1. Write a program to find the list of students having pass marks in both exams. 2. Write a program to perform bitwise operation on operands. 3.Write a program to Reverse a Given Number Using While Loop. 4. Print Multiplication Table Using for Loop.
Practical 7	1.Read the percentage of a student and check in which class he belongs: (1) distinction (2) first class (3) second class (4) fail. (using if-else ladder). 2.C Program to Calculate Gross Salary of an Employee.
Practical 8	1.Write a C program to display 1 to N, read N from key board. (in same row and different rows, using all three loops) 2. C program to add two numbers without using the addition operator.
Practical 9	1.Write a C program to add first 10 numbers and display the summation, using loops. 2.C Program To Print Day of Week Name Using Switch Case.

	3. To check for equality of two numbers without using arithmetic or comparison operator.
Practical 10	1. Write programs using While Loop and Do-while loop. 2. Write a program to display terms of Fibonacci series. 3. Write a program to check whether the given number is prime or not
Practical 11	1. Write a C Program to Calculate Sum & Average of an Array 2. Write a C Program to sort values in an array. 3. Write a C Program to merge two arrays. 4. Write a C Program to find a particular value in an array.
Practical 12	1.Write a C program to find the factorial of given number. 2.C program to read string with spaces using scanf() function.
Practical 13	1.Write a C programs to make pattern using nested loop. 2.Write a program to illustrate the use of unary prefix and postfix increment and decrement operators.
Practical 14	1.Write a C program to read height of ten students and count the number of odd height and even height students. 2.Write a program to check number is Armstrong or not.
Practical 15	1. Write a C program to find maximum (or minimum) element from 1-D array having N elements. 2.Program in C to print the number pyramid pattern. 3.Program in C to print the Number Diamond Pattern.

Fundamentals of Electrical and Electronics Engineering (03607151)

Type of Course: Diploma-PU (2020), Int. BTech

Prerequisite: Knowledge of Physics and Mathematics up to 10th Standard Level.

Rationale: Electrical and electronics engineering equipment is widely used in mechanical/ metallurgy/mining /Auto mobile / Aeronautical engineering applications and a diploma engineer from any of these disciplines have to identify the related equipment being used in the industry with respect to their working and major faults that could occur. Electronics is an integral part of computers; hence students of computer engineering and information technology need to know the fundamental of electronics. This course has been designed to provide the needful inputs to handle simple electronic components and circuits. Students after studying this course will be able to understand the basics of analog electronics, various electronics components and develop skills to use simple electronic instruments needed for computer-based working environment.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/		T	P	T	CE	P	
2	1	-	3	60	-	20	20	-	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Contents:

Sr.	Topic	Weightage	aching Hrs.
1	**Overview of Electronic Components & Signals**: Passive Active Components: Resistances, Capacitors, Inductors, Diodes, Transistors, FET, MOS and CMOS and their Applications. Signals: DC/AC, voltage/current, periodic/non-periodic signals, average, rms, peak values, different types of signal waveforms, Ideal/non-ideal voltage/current source, independent/dependent voltage current sources.	15%	6
2	**Introduction of Semiconductor Components** P-N junction diode, V-I Characteristics of P-N junction Diode, Zener Diode, Classification of Transistor, Transistor construction, Types of transistors (NPN & PNP)	10%	5
3	**Overview of Digital Electronics**: Number systems, Base Conversion -BINARY -DECIMAL -HEX -OCTAL, Complements - 2' and 10's Complement -1's and 9's Complement, Binary addition, subtraction, multiplication and division Logic Gates -Basic Gates (AND, OR, Not), Universal Gates (NAND and NOR Gate), Complementary Gates-(EX-OR, EX-NOR), De-Morgan's Theorems, Adder and Subtractor, Multiplexer and De-multiplexer.	25%	10

4	**Electric Circuit:** Generation of electricity, Different terms related to electric circuit, Concept of AC and DC, Concept of 1-phase and 3-phase supply, Electrical circuit elements – Resistor Inductor and Capacitor, Resistor in series and parallel, Ohm's law and its limitations, Factors affecting the value of resistance	20%	8
5	**Magnetic Circuit:** Terms Related to magnetic circuit, Terms Related to AC circuit, Faraday's Law, Fleming's law, Lenz's Law, Hysteresis loop (B/H Curve), Types of Induced EMF, Comparison between Electric and Magnetic Circuit	20%	8
6	**Transformer and Machines:** General construction and principle of different type of transformers; Emf equation and transformation ratio of transformers; Auto transformers; Construction and Working principle of motors; Basic equations of motors.	10%	5

***Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Reference Books:

1. Basic Electrical Engineering Ritu Sahdev; Khanna Publishing House
2. Basic Electrical Engineering Mittle and Mittal; McGraw Education
3. Fundamentals of Electrical Engineering Saxena, S. B. Lal; Cambridge University Press
4. Electrical Technology Vol-1 Theraja, B. L.; S. Chand, New Delhi
5. Principles of Electronics V.K. Mehta; S. Chand and Company

Useful Links:

1. https://www.youtube.com/watch?v=8Posj4WMo0
2. https://www.youtube.com/watch?v=w82aSjLuD_8
3. https://www.youtube.com/watch?v=nBM1kd_ECog
4. https://www.youtube.com/watch?v=5uyJezQNSHw
5. https://www.youtube.com/watch?v=M-QfX2fvpp4
6. https://www.youtube.com/watch?v=bfR0k0BJeBE
7. https://www.youtube.com/watch?v=ynLqtQqZQe4
8. https://www.youtube.com/watch?v=vh_aCAHThTQ
9. https://www.youtube.com/watch?v=tiKH48EMgKE

Course Outcome:

After Learning the course, the students shall be able to:

1. Understand the basic circuit elements.
2. Understand logic gates and apply them in various electronic circuits.
3. Understand the basic concepts of op-amps, and their applications.
4. Solve basic problems related to electrical circuits and machines.

Fundamentals of Electrical and Electronics Engineering Lab (03607152)

Type of Course: Diploma-PU(wef-2020)

Prerequisite: Knowledge of Physics and Mathematics up to 10th Standard Level.

Rationale: Electrical and electronics engineering equipment is widely used in mechanical/ metallurgy/mining /Auto mobile / Aeronautical engineering applications and a diploma engineer from any of these disciplines have to identify the related equipment being used in the industry with respect to their working and major faults that could occur. Electronics is an integral part of computers; hence students of computer engineering and information technology need to know the fundamental of electronics. This course has been designed to provide the needful inputs to handle simple electronic components and circuits. Students after studying this course will be able to understand the basics of analog electronics, various electronics components and develop skills to use simple electronic instruments needed for computer-based working environment.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
Lect Hrs/	Tut Hrs/	Lab Hrs/ Week		External	Internal				
				T	P	T	CE	P	
-	-	2	1	-	0	-	-	50	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Reference Books:

1. Basic Electrical Engineering
   Ritu Sahdev; Khanna Publishing House
2. Basic Electrical Engineering
   Mittle and Mittal; McGraw Education
3. Fundamentals of Electrical Engineering
   Saxena, S. B. Lal; Cambridge University Press
4. Electrical Technology
   B. L. Theraja; S. Chand
5. Principles of Electronics
   V.K. Mehta; S. Chand and Company

Useful Links:

https://www.youtube.com/watch?v=8Posj4WMo0o
https://www.youtube.com/watch?v=w82aSjLuD_8
https://www.youtube.com/watch?v=nBM1kd_ECog
https://www.youtube.com/watch?v=HsLLq6Rm5tU&t=249s
https://www.youtube.com/watch?v=5uyJezQNSHw
https://www.youtube.com/watch?v=M-QfX2fvpp4
https://www.youtube.com/watch?v=bfR0k0BJeBE
https://www.youtube.com/watch?v=ynLqtQqZQe4
https://www.youtube.com/watch?v=vh_aCAHThTQ
https://www.youtube.com/watch?v=tiKH48EMgKE

Course Outcome:

After Learning the course the students shall be able to:
After learning the course, the students should be able to

1. Understand the basic circuit elements.
2. Understand logic gates and apply them in various electronic circuits.
3. Understand the basic concepts of op-amps, and their applications.
4. Solve basic problems related to electrical circuits and machines.

List of Practical:

1. Determine the permeability of magnetic material by plotting its B-H curve. 2. Measure voltage, current and power in 1-phase circuit with resistive load. 3. Measure voltage, current and power in R-L series circuit.

4. Determine the transformation ratio (K) of 1-phase transformer.

5. Connect single phase transformer and measure input and output quantities. 6. Identify various active and passive electronic components.

7. Connect resistors in series and parallel combination on bread board and measure its value using digital multimeter.

8. Use multimeter to measure the value of given resistor. Determine the value of given resistor using digital multimeter to confirm with colour code.

9. Test the performance of PN-junction diode.

10. Test the half wave rectifier using CRO.

11. Test the Bridge rectifier and capacitor filter using CRO.

12. Test the performance of Zener diode.

13. Identify the pins of IC 741.

14. Test the performance of CE NPN transistor.

15. Test the performance of transistor amplifier circuit.

Mathematics-I (03691101)

Type of Course: Diploma

Prerequisite: Knowledge of basic concept studied till 10th std.

Rationale: The study of mathematics is an important requirement for the understanding and development ofany branch of engineering. The purpose of teaching mathematics to diploma engineering students is to impart them basic knowledge of mathematics which is needed for full understanding and study of engineering subjects.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/		T	P	T	CE	P	
2	1	-	3	60	-	20	20	-	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** – Continuous Evaluation, **T** - Theory, **P** - Practical

Contents:

Sr.	Topic	Weightage	TeachingHrs.
1.	**Unit I:** **Logarithms:** Definition, Logarithm as a transformation, Antilogarithm, Rules of Logarithms and examples, Use logarithmic functions for simplifying arithmetic computations. **Partial fractions:** Definition of partial fractions. Types of partial fraction (Denominator containing non-repeated linear factors, repeated linear factors and irreducible non-repeated quadratic factors).	17%	4
2.	**Unit II:** **Trigonometry:** Concept of angles, measurement of angles in degrees, grades and radians and their conversions, T-Ratios of Allied angles (without proof), Trigonometric identities, Sum, difference formulae and their applications (without proof). Product formulae (Transformation of product to sum, difference and vice versa). T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2). Graphs of all trigonometric functions	23%	7
3.	**Unit III:** **Permutations and Combinations:** Value of nPr and nCr with related examples, First principal of Mathematical Induction(without proof) **Binomial theorem:** Binomial theorem (without proof) for positive	9%	3

	integral index (expansion and general form); binomial theorem forrational index (expansion without proof) first and second binomialapproximation with applications to engineering problems		
4.	**Unit IV:** **Complex Numbers:** Definition of a complex number, real and imaginary parts of a complex number, Polar and Cartesian representation of complex number, Conjugate of complex number**,** Geometric representation of complex numbers and their operations, Modules and Amplitude form, De Moivre's Theorem, Root of Complex Number, Use of De Moivre's Theorem to simplify mathematical expressions.	17%	4
5.	**Unit V:** **Calculus:** Definition of function; Concept of limits and standard forms of limits $\lim_{x \to a} \frac{x^n - a^n}{x-a}, \lim_{x \to 0} \frac{a^x - 1}{x}, \lim_{x \to a} \left(\frac{a^x - 1}{x}\right)$ and $\lim_{x \to a} (1+x)^{\frac{1}{x}}$ Definition of continuous function and examples. Definition of derivative, differentiation of standard function by first principle, Rule of Differentiation, Differentiation of algebraic, trigonometric, Exponential, Logarithmic, Implicit functions and Composite functions, Higher order derivatives.	34%	10

REFERNCE BOOKS:

1. Higher Engineering Mathematics, B.S. Grewal, Khanna Publishers, New Delhi
2. Engineering Mathematics (Diploma Stream), H.K. Dass, S. Chand Publishing
3. Mathematics for Polytechnic, S.P. Deshpande, Pune Vidyarthi Griha Prakashan.
4. Polytechnic Mathematics (Made Easy)(Applied Mathematics) , Manjeet Singh

COURSE OUTCOMES:

By the end of the course, the students are expected to

(i) Use Logarithms in engineering calculations

(ii) Resolve Rational Fraction into sum of Partial Fractions in engineering problems

(iii) Understand Trigonometric Ratios and solve problems using the formulae for Multiple and Submultiple Angles

(iv) Represent Complex numbers in various forms like modulus-amplitude (polar) form, Exponential(Euler) form – illustrate with examples.

(v) Use the concepts of Limit and Continuity for solving the problems

(vi) Appreciate Differentiation and its meaning in engineering situations

Communication Skills - I (03693101)

Type of Course: Diploma-PU(wef-2020)

Prerequisite: Knowledge of English Language.

Rationale: Communication confidence laced with knowledge of English grammar is essential for all engineers.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/	Lab Hrs/		T	P	T	CE	P	
1	-	-	1	60	-	20	20	-	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Note: 15 Hours of additional sessions will be taken (within the semester) to match up 30 hours content.

Contents:

Sr.	Topic	Weightage	Hours
1	**Ice breaker + Introducing your friend**: • This is one activity which will build the bond between the students i the class and work as a team in the task given to them. The students will be asked to introduce their new best friend in the class. This will ensure that the bond being created here will stay strong and also breaks the ice between them.	05%	01
2	**Picture connector**: • In this class the students will be trained to form a logical connection between a set of pictures which will be shared with them. • This geared towards building creativity and presentation skills.	05%	01
3	**Crazy Scientist**: • The students will be taught the importance of invention and innovation using some examples that changed the world the way it worked.	05%	01
4	**Shopping role play**: • This activity topic gears towards making students do role play based on shopping scenarios. • It involves giving them a scenario and asking them to further develop the idea in a very interesting manner, then going on to enact it.	05%	01
5	**Grammar** • Parts of speech, Active and Passive voice, Tenses	20%	10

6	**Communication: Theory & Practice** Basics of communication: Introduction ,meaning, definition , Process of communication Types of communication: Formal, Informal , Verbal / Non verbal and Written barriers to effective communication 7 Cs of effective communication: (considerate ,concrete concise , clear , complete , correct and courteous) Technical Communication :	12%	05
7	**Soft Skills** for Professional excellence I**ntroduction** :Soft skills and hard skills , **Importance of soft skills**	12%	02
8	**Debate**: • Students are trained to let go of inhibitions and come forward and speak openly on passionate topics. • The students will be divided into teams and made to share their ideas and views on the topics.	05%	01
9	**Extempore**: • To change the average speakers in the class to some of the best Orator. • This will be done by making the students give variety of impromptu speeches in front of the class.	05%	01
11	**Letter Writing** • Types of letters-Inquiry letter, Order letter, Complaint letter, Adjustment, Request letter, Recommendation letter • Format of letters	12%	02
12	**Reading Comprehension**: • Dabbawalahs • A Snake in the grass • Internet – Dr. Jagdish Joshi	14%	05
	Total	**100**	**30**

***Continuous Evaluation:**

It consists of internal exams/ external exam/Phase test/Class participation/Activities/Presentations/Quizzes/Surprise Tests etc.

Reference Books:

1. Technical Communication –Principles & Practice-IInd Edition by Meenakshi Raman & Sangeeta Sharma.
2. Effective Technical Communication by Dr.Bharti Kukreja & Dr. Anupama Jain
3. J.D.O'Connor. Better English Pronunciation. Cambridge: Cambridge University Press, 1980.
4. Lindley Murray. An English Grammar: Comprehending Principles and Rules. London:Wilson & Sons, 1908.
5. Kulbhushan Kumar, Effective Communication Skills, Khanna Publishing House, New Delhi (Re-vised Edition 2018)
6. Margaret M. Maison. Examine your English. Orient Longman: New Delhi, 1964.
7. M.Ashraf Rizvi. Effective Communication. Mc-Graw Hill: Delhi, 2002.
8. John Nielson .Effective Communication Skills Xlibris, 2008.
9. Oxford Dictionary
10. Roget's Theasaurus of English Words and Phrases.
11. Collin's English Dictionary

Course Outcome

1. At the end of this course, the participants will:
2. Develop basic speaking and writing skills including proper usage of language and vocabulary so that they can become highly confident and skilled speakers and writers.
3. Be informed of the latest trends in basic verbal activities such as presentations, facing interviews and other forms of oral communication.
4. Also develop skills of group presentation and communication in team.
5. Develop non-verbal communication such as proper use of body language and gestures.

Different Cell active at Parul University

SR.NO	NAME OF CELL	NAME	CONTACT .NO
1	Anti-Ragging Committee	Mrs.Hetal Prajapati	9662053087
2	Appointment of Grievances Redressal Committee	Mrs. Sonal Pujara	9825335984
3	Physically Disability Grievance committee	Mr. Shailesh Parmar	9824600642
4	SC-ST Cell Committee	Ms. Sonal Vasava	7574991072
5	Women's Development Committee	Mrs. Rina Chokshi	9429825116
6	Student Grievances Redressal Committee	Mrs. Sonal Pujara	9825335984
7	EDC Cell	Mrs. Hetal Bhai asana	9033822802
8	Sports	Mr. Viral Chavan, Mr. Yash Avashya	9904781879, 9428373064
9	Cultural	Mr. Meet Jivani	8980276527
10	Technical	Mr. Darshan Parmar	7405883928
11	NCC	Mr. Vishal Makwana	7874092705
12	IRC	Mrs. Preeti Joshi	9898404732

Ranker List:

SR.NO	Enrollment No	Student Name	CGPA
1	210339616069	SINGH NITIN SUNIL	9.77
2	210339616286	AJAY KUMAR TELI	9.77
3	210339616284	ALISHER RAIN	9.56
4	210339616285	ASHOK KUMAR SAH	9.49
5	210339616138	KEVAL PRAVIN HIRANI	9.41
6	210339616011	AADITYA RAMESHBHAI SAPKAL	9.38
7	210339616006	PARIKH PRATHAM KALPESHKUMAR	9.33
8	210339616146	AUM LEELARAM KHER	9.33
9	210339616062	RAHATEKAR PRASAD SANJAYBHAI	9.28
10	210339616283	DURGA PRAJAPATI	9.26

List of Holidays:

SR.NO	NAME OF PUBLIC HOLIDAY	DATE
1	Raksha Bandhan	11-08-2022
2	Independence Day	15-08-2022
3	Janmashtami	19-08-2022
4	Ganesh Chaturthi	31-08-2022

Scholarship Details:

Sr. No	Scheme of Scholarship	Amount	Eligibility Criteria
1	SC scholarship	100% scholarship on tuition fees.	The annual family income shall not be more than Rs. 2,50,000 and The girls whose family income is morethan Rs,2,50,000/- will be eligible to get only
2	ST Scholarship	100% scholarship on tuition fees.	The annual family income shall not be more than Rs. 2,50,000/- and The girls whose family income is more than Rs,2,50,000/- will be eligible to get scholarship on tuition fees.
3	SEBC/OBC Scholarship	Maximum of Rs.5,500/-per annum towards scholarship	The annual family income shall not be more than Rs. 1,00,000 and require NCL Certificate.
4	Pragati & Saksham Scheme for girls only	The selected students receive a tuition fee of Rs. 30,000 or the actualtuition fee amount, whichever is less.	Applicant must be admitted to the 1st year of diploma/degree programme of an AICTE approved Collage/Institute in the current academic year through the centralized admission process of the State/Central Government.

5	MYSY scholarship	50% of tuition fees	The candidate, who has secured admission to diploma engineering shall have secured a minimum 80 percentile in Std.10 Examination conducted by Gujarat Secondary & Higher Secondary Education Board or any other approved board for being able to avail of MYSY scheme.
6	Socially and Educationally Backward Class scholarship scheme(NTDNT)	The student fulfilling the above criteria will be entitled to a scholarship amount ofan actual tuition fee oror Rs.50,000/-, whichever is less.	The annual family income shall not be more than Rs. 2,50,000
7	National scholarship portal(Minority Scholarship)	Decided by government	This post metric scholarship scheme is available to students belonging to minority groups such as Muslim, Christian, Sikh, Buddhist, Jain and parsis.

DISCIPLINE RULES

The smooth functioning of the institute depends upon observance of discipline by the students. Violation of these rules deprives the students of the advantages of different facilities provided by the institute. Following is some of the important rules of discipline.

Parents/Guardians are requested to direct their wards to observe the following Rules of Discipline:

RULES

1. Students must attend lectures, practical's, tutorials, etc. as per the Time Table. Students whose attendance and/or progress in various tests and examinations is not satisfactory and who do not perform the required number of tutorials and/or practical are likely to lose their terms. Students who do not submit compulsory project work in subject are likely to lose their term. Prolonged absence even on grounds of ill health may also lead to loss of terms. Defaulters will not be sent up for University Examinations.

2. The Identity Card is meant for identifying Bonafede students and is used for permitting the student to participate in various activities and programs of the institute. Every student must wear the Identity Card as long as he/ she is in the institute campus. It must be produced by the student whenever demanded by a member of the teaching or non-teaching staff of the institute. Every student must bring his /her Identity Card to the institute every day. In case the Identity Card is lost, the matter should be immediately reported to the principal and an application should be made for a duplicate Identity Card which will be issued on payment of charges.

3. The conduct of the students in the classes and in the premises of the institute shall be such as will cause no disturbance to teachers, fellow students or other classes.

4. Every student shall wear a clean and decent dress while coming to the institute. To wear Shoes for the boys and sandal for the girls are compulsory in the institute campus.

5. No Society or Association shall be formed in the institute and no person should be invited on the institute campus without the specific permission of the principal. The principal has a right to refuse such permission.

6. No student is allowed to display any Notice/Circular/Poster/Banner in the institute premises without the prior permission of the principal. Strict action will be taken against the defaulters.

7. All meetings, cultural programs, debates, elocutions, etc. organized on the institute premises must be held in presence of teaching staff members and with the prior permission of the principal.

8. Students involved in malpractices at the institute / Board / University Examinations will not be admitted to the institute.

9. Smoking & use of tobacco is strictly prohibited in the institute premises.

10. Mobile phones are strictly prohibited in the classroom.

11. Students must not loiter on the institute premises while the classes are at work.

12. Students shall do nothing inside or outside the institute that will interfere with the discipline of the institute or tarnish the image of the institute.
13. Students must be entering the classroom before starting the lecture.
14. Half & full submission of all subjects are compulsory otherwise examination form will not be Accepted.
15. Students should not do any kind of misbehavior with the other students and faculty members

Acts of misbehavior, misconduct, indiscipline or violation of the Rules of Discipline mentioned above are liable for one or more punishments as stated below:

1. Warning to the student as well as a letter to the parents.
2. Imposition of a fine.
3. Denial of library, laboratory, student aid or any other facility for a specified period or for the whole Term/year.
4. Cancellation of Terms.
5. Refusal of admission in the next term or academic year.
6. Cancellation of admission.
7. Expulsion from the institute for a specified period.
8. Rustication

Anti-Ragging Committee:

Sr. No.	Name	Designation	Position held in Anti Ragging	Contact. No
1	Dr.Ruchi Shrivastava	Principal	Committee-Chairperson	9909027481
2	Mrs.Hetal Prajapati	HOD-Electrical	Committee-Member	9662053087
3	Mrs.Sonal Pujara	HOD-App. Scie.	Committee-Member	9825335984
4	Mrs.Rina Chokshi	HOD-Civil	Committee-Member	9429825116
5	Mrs.Bindi Thakkar	HOD-Mechanical	Committee-Member	9904344799
6	Mrs.Prabha Modi	HOD-Chemical	Committee-Member	9429927893
7	Mr.Karnail saini	HOD-Aeronautical	Committee-Member	9723615801
8	Mr.Shailesh Parmar	HOD-Auto mobile	Committee-Member	9824600642
9	Mrs.Donika Chaudhari	HOD-EC	Committee-Member	9016402712
10	Mrs.Hetal Bhaidasna	HOD-Computer	Committee-Member	9033822802
11	Mr.Mahesh Bhatt	Academic Director	Squad Member	9727072781
12	Mr.Dhrupatsinh Raulji	Hostel Rector-Boys	Committee-Member	9408154890
13	Mrs.Parul Prajapati	Hostel Rector-Girls	Committee-Member	8980811351
14	Mr.Patni Jeet	Student-Mechanical	Committee-Member	9727706972
15	Ms.Shah Jiya	Student-Computer	Committee-Member	7016291431

EARLY DEPARTURE FORM

PIET DS 1ST SHIFT COMPUTER DEPARTMENT
(DIPLOMA STUDIES)

DETAIL OF THE STUDENT GOING OUT OF THE CAMPUS

1. **NAME OF COLLEGE: _____**
2. **NAME OF DEPATMENT: _____**
3. **NAME OF STUDENT: _____**
4. **ENROLLMENT NO.: _____**
5. **SEMISTER/YEAR/SHIFT: _____**
6. **DATE: _____**
7. **REASON FOR GOING OUT OF CAMPUS: _____**
8. **CONTACT NO OF PARENTS: _____**
9. **CONTACT NO OF STUDENT: _____**
10. **SIGNATURE OF CLASS TEACHER: _____**

FOR DEPARTMENT COPY

_____Student of ____sem. of Computer Department allows leaving campus earlier with permission of HOD & Principal.

Sign of MFT: - **Sign of HOD:**

Sign of Principal:

PARUL INSTITUTE OF ENGINEERIN & TECHNOLOGY DIPLOMA STUDIES

COMPUTER ENGINEERING DEPARTMENT

HALL TICKET FOR SEMESTER 1ST

NAME OF STUDENT:

TEMPORARY NO./ENROLLMENT NO.:

SEMESTER:

CLASS:

SUBJECTS:	**ES**	**IIT**	**CP**		**MATHS-1**		**FEEE**		**CS-1**
	LEC	**LAB**	**LEC**	**LAB**	**LEC**	**TUTORIAL**	**LEC**	**LAB**	**LEC**
HALF SUBMISSION									
FULL SUBMISSION									

SIGNATURE OF FACULTY ADVISOR	**SIGNATURE OF HOD**