



ESTD : 2007

Sri Indu Institute of Engineering and Technology (Autonomous)

(Formerly RVR Institute of Engineering & Technology)

An Autonomous Institution Under UGC

NAAC Accredited. Recognized Under 2(f) of UGC Act 1956

EAMCET CODE: INDI

Approved by AICTE, New Delhi, & Affiliated to JNTUH, Hyderabad.

JNTUH CODE: X3



COURSE FILE

ON

C PROGRAMMING FOR ENGINEERS

Course Code – CS102ES

**I-B. Tech Semester-I
A.Y. 2022-2023**

Prepared by

B.RAJESHWARI

Asst. Professor

Head of the Department
Department of H&S
SRI INDU INSTITUTE OF ENGG & TECH
Sheriguda(VIII), Ibrahimpatnam (M) R.R. Dist-501 510

PRINCIPAL
Sri Indu Institute of Engineering & Tech.
Sheriguda(VIII), Ibrahimpatnam
R.R. Dist. Telangana-501 510.



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INSTITUTE VISION & MISSION

Vision:

To become a premier institute of academic excellence by providing the world class education that transforms individuals into high intellectuals, by evolving them as empathetic and responsible citizens through continuous improvement.

Mission:

- **IM1:** To offer outcome-based education and enhancement of technical and practical skills.
- **IM2:** To Continuous assess of teaching-learning process through institute-industry collaboration.
- **IM3:** To be a centre of excellence for innovative and emerging fields in technology development with state-of-art facilities to faculty and students' fraternity.
- **IM4:** To Create an enterprising environment to ensure culture, ethics and social responsibility among the stakeholders.


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SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

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Khalsa Ibrahimpatnam, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist., Telangana – 501510

PROGRAM OUTCOMES

PO1: ENGINEERING KNOWLEDGE: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: PROBLEM ANALYSIS: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: DESIGN/DEVELOPMENT OF SOLUTIONS: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: MODERN TOOL USAGE: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: THE ENGINEER AND SOCIETY: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: ENVIRONMENT AND SUSTAINABILITY: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: ETHICS: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: INDIVIDUAL AND TEAM WORK: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: COMMUNICATION: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instructions.

PO11: PROJECT MANAGEMENT AND FINANCE: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: LIFE-LONG LEARNING: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change


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SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY
ELECTRONICS AND COMMUNICATION ENGINEERING
COURSE STRUCTURE, I YEAR SYLLABUS (BR22 Regulations)
Applicable from Academic Year: 2022-23 Batch

I Year I Semester

S.No.	Course Code	CourseTitle	L	T	P	Credits
1.	MA101BS	Matrices and calculus	3	1	0	4
2.	AP102BS	Applied physics	3	1	0	4
3.	CS102ES	C programming for Engineers	3	0	0	3
4.	ME102ES	Engineering workshop	0	1	3	2.5
5.	EN104HS	English for skill enhancement	2	0	0	2
6.	EC101ES	Elements of electronics and communication Engineering	0	0	2	1
7.	AP105BS	Applied physics laboratory	0	0	3	1.5
8.	EN107HS	English language and communication skills Laboratory	0	0	2	1
9.	CS105ES	C programming for engineers laboratory	0	0	2	1
10.	*MC101ES	Environmental science	3	0	0	0
11.		Induction programme				
		Total	14	3	12	20

I Year II Semester

S No.	Course Code	Course Title	L	T	P	Credits
1.	MA201BS	Ordinary Differential Equations and Vector Calculus	3	1	0	4
2.	CH203BS	Engineering Chemistry	3	1	0	4
3.	ME201ES	Computer Aided Engineering Graphics	1	0	4	3
4.	EE201ES	Basic Electrical Engineering	2	0	0	2
5.	EC201ES	Electronic Devices and Circuits	2	0	0	2
6.	CS202ES	Applied Python Programming Laboratory	0	1	2	2
7.	CH206BS	Engineering Chemistry Laboratory	0	0	2	1
8.	EE202ES	Basic Electrical Engineering Laboratory	0	0	2	1
9.	EC202ES	Electronic Devices and Circuits Laboratory	0	0	2	1
		Total	11	3	12	20



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C PROGRAMMING FOR ENGINEERS

(Course Code: CS102ES)

B.Tech. I Year I Sem.

L T P C

3 0 0 3

Course Objectives:

1. To learn the fundamentals of computers.
2. To understand the various steps in Program development.
3. To learn the syntax and semantics of C Programming Language.
4. To learn the usage of structured programming approach in solving problems.

Course Outcomes: Upon completing this course, the students will be able to

1. Draw flowcharts for solving arithmetic and logical problems
2. Develop modular reusable code by understanding concepts of functions.
3. Formulate algorithms and programs using arrays, pointers, strings and structures.
4. Write a programs using Searching and sorting algorithms

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	-	1	-	-	-	-	-	1
CO2	3	2	3	2	-	2	-	-	-	-	-	1
CO3	3	3	2	1	-	2	-	1	-	-	-	1
CO4	3	3	3	2		1	-	1				

UNIT-I

Introduction to Computer Algorithms and Programming

Components of a computer system: Memory, processor, I/O devices, storage, operating system, the concept of assembler, compiler, interpreter, loader, and linker.

From algorithm to program: Representation of an algorithm, flowchart, Pseudocode with examples, converting algorithms to programs.

Programming Basics: Structure of C program, writing and executing the first C program, Syntax and logical errors in compilation, object, and executable code. Components of C language, standard I/O in C, data types, variables and constants, memory storage, and storage classes.

UNIT-II

Expressions and Statements

Expressions and their evaluation: Operands and Operators, formation of expressions using arithmetic, relational, logical, and bitwise operators, precedence and associativity rules, mixed operands, type conversion, and evaluation of expressions.

Statements: Simple and compound statements, Conditional Branching: if and switch statements,

nested if-else, dangling else problem, use of break and default with switch. Iteration and loops: use of while, do-while and for loops, nested loops, use of break and continue statements.

UNIT-III

Functions and Arrays

Designing Structured Programs: Introduction to functions, advantages of modularizing a program into functions, types of functions, passing parameters to functions: call by value, call by reference, passing arrays to functions, recursion with example programs.

Arrays: Array notation and representation, manipulating array elements, using multi-dimensional arrays, character arrays, C strings, string input/output functions, Arrayofstrings, string manipulation functions with example programs.

UNIT-IV

Pointers and File handling

Pointers: Introduction, declaration, applications, dynamic memory allocation (malloc, calloc, realloc, free), use of pointers in self-referential structures.

File handling: File I/O functions, standard C pre-processors, defining and calling macros, command-line arguments.

UNIT-V

Derived types And Basic Algorithms:

Structures, Union, Enums and Bit-fields: Defining, declaring, and usage of structures, unions, and their arrays, passing structures, and unions to functions, introduction to enums and bit-fields.

Basic Algorithms: Searching and Sorting Algorithms (Bubble, Insertion, and Selection), finding roots of equations, notion of order of complexity through example programs.

TEXTBOOKS:

1. B. A. Forouzan and R. F. Gilberg -Programming & Data Structures, 3rd Ed., Cengage Learning`
2. Byron Gottfried - Schaum's Outline of Programming with C, McGraw-Hill

REFERENCEBOOKS:

1. Ajay Mittal - Programming in C: A practical approach, Pearson Education, 2010
2. Kernighan Brian W. and Ritchie Dennis M.- The C programming, Pearson Education.
3. J. R. Hanlyand, E. B. Koffman -Problem Solving and Program Design, 5th Ed., Pearson Education.
4. H. Cheng - C for Engineers and Scientists, McGraw-Hill International Edition
5. V. Rajaraman - Computer Basics and C Programming, PHI Learning, 2015.



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Course : C Programming for Engineers(CS102ES)

Class: I-B.TECH ECE

Course Outcomes

After completing this course the student will be able to:

- C113.1: Summarize computer system components (memory, processor, I/O devices, storage) and roles of assembler, compiler, interpreter, loader, and linker in program execution.
(Understanding)
- C113.2: Analyze various types of operators , data types and understand the definition of algorithm and flowchart .(Analyzing)
- C113.3: Illustrate conditional branching and iteration using if, switch, while, do-while, and for loops.(Understanding)
- C113.4: Develop modular reusable code by understanding concepts of functions. (Applying)
- C113.5: Formulate algorithms and programs using arrays, pointers, strings and structures.(Creating)
- C113.6: Develop a programs using Searching and sorting algorithms(Creating)



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CO's Mapping with PO/PSO

Mapping of course outcomes with program outcomes:

High -3 Medium -2 Low-1

PO/PSO/ CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C113.1	3	2	1	1	-	1	-	-	-	-	-	1	-	-
C113.2	3	2	3	2	-	2	-	-	-	-	-	1	-	3
C113.3	3	3	2	1	-	2	-	1	-	-	-	1	-	3
C113.4	3	3	3	2	-	1	-	1	-	-	-	-	-	2
C113.5	3	2	1	1	-		-	2	-	-	-	2	2	3
C113.6	3	3	2	2	-	3	-	1	-	-	-	3	2	2
C113	3.00	2.50	2.00	1.50	-	1.80	-	1.25	-	-	-	1.60	2.00	2.60



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CO-PO mapping Justification

PROGRAMME OUTCOMES (POs):

PO1: ENGINEERING KNOWLEDGE: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: PROBLEM ANALYSIS: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: DESIGN/DEVELOPMENT OF SOLUTIONS: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO6: THE ENGINEER AND SOCIETY: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO8: ETHICS: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO12: LIFE-LONG LEARNING: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

PROGRAM SPECIFIC OUTCOMES(PSOs):

PSO1	Professional Skills: The ability to implement computer programs of varying complexity in the areas related to web design, cloud computing and networking.
PSO2	Problem-Solving Skills: The ability to develop quality products using open ended programming environment.

C113.1 : Summarize computer system components (memory, processor, I/O devices, storage) and roles of assembler, compiler, interpreter, loader, and linker in program execution.(Understanding(L2))

	Justification
PO1	Student Apply the knowledge of Understanding Hardware Essentials (level 3)
PO2	Student analyses the Operating System Awareness (level 2)
PO3	Student can use different Software Development Tools Appreciation (level 1)
PO4	Student apply Memory Management Proficiency. (level 1)
PO6	Student apply Software Translation Process Understanding (level 1)
PO12	Student can recognize importance of Holistic System Understanding (level 1)

C113.2 : Analyze various types of operators , data types and understand the definition of algorithm and flowchart .(Analyzing)

	Justification
PO1	Utilizing operators and data types is fundamental in applying mathematical and engineering principles to solve complex problems. (level 3)
PO2	Efficient problem analysis and substantiated conclusions are facilitated through precise handling of data and logical operations. (level 2)
PO3	Students analyses Designing solutions. (level 3)
PO4	Students involves creating algorithms, and conducting investigations. (level 2)
PO6	Students adeptly apply their reasoning skills to solve algorithms. (level 2)
PO12	Continuous learning about algorithms and flowcharts enables engineers to engage in independent problem-solving and adapt to technological changes throughout their careers. (level 1)
PSO1	Students demonstrate a high level of proficiency in efficiently implementing projects, algorithms, and flowcharts. (level 3)

C113.3 : Illustrate conditional branching and iteration using if, switch, while, do-while, and for loops.(Understanding)

	Justification
PO1	Understanding and implementing conditional branching and iteration involve a strong foundation in

	mathematical and engineering principles. (level 3)
PO2	Students, through implementing various loops and branching structures, engage in problem analysis and substantiate conclusions using first principles. (level 3)
PO3	The ability to use loops and conditional statements is crucial in designing solutions for complex engineering problems. (level 2)
PO4	Implementing loops and conditional statements requires students to conduct investigations and synthesize information to draw valid conclusions. (level 1)
PO6	Students, in understanding and implementing loops and conditional statements, assess societal issues, including safety and legal considerations, which are vital aspects of professional engineering practice. (level 2)
PO8	Students to apply ethical principles in the design and implementation of algorithms. (level 1)
PO12	Proficiency in conditional branching and iteration reflects a readiness to engage in ongoing learning in the rapidly evolving field of technology. (level 1)
PSO2	Students demonstrate a proficient ability to develop high-quality products by effectively leveraging an open-ended programming environment. (level 3)

C113.4 : Develop modular reusable code by understanding concepts of functions. (Applying)

	Justification
PO1	Student get the knowledge of Structured programming language. (level 3)
PO2	Student can explain the concept of Types of functions (level 3)
PO3	Student can use Parameters passing techniques. (level 2)
PO4	Student apply Knowledge on passing arrays to functions. (level 1)
PO6	Student can recognize importance of Recursive functions.(level 1)
PO8	Students analyze recursive problems. (level 1)
PSO2	Effective use of functions enhances problem-solving skills in programming. (level 2)

C113.5 : Formulate algorithms and programs using arrays, pointers, strings and structures. (Creating)

	Justification
PO1	The ability to formulate algorithms and programs using arrays, pointers, strings, and structures demonstrates the application of engineering knowledge. (level 3)

PO2	Students, in creating programs with arrays, pointers, strings, and structures, are engaged in problem analysis, reaching substantiated conclusions based on mathematical and engineering principles. (level 2)
PO3	Student can analyze string manipulation functions and pointer applications. (level 1)
PO4	Research-based knowledge and methods, including data analysis, are essential for creating valid conclusions in the development of programs using arrays, pointers, strings, and structures. (level 1)
PO8	As students formulate algorithms and programs, they are expected to adhere to professional ethics and responsibilities, ensuring the integrity of their code and considering the societal impact of their solutions. (level 2)
PO12	Students recognize the need to adapt to technological changes, demonstrating a commitment to continuous learning in the dynamic field of programming. (level 2)
PSO1	Creating programs involving arrays, pointers, strings, and structures enhances students' professional skills in implementing computer programs. (level 2)
PSO2	They can create quality products, demonstrating proficiency in addressing challenges within the programming domain. (level 3)

C113.6 : Develop a programs using Searching and sorting algorithms(Creating)

	Justification
PO1	Applying searching and sorting algorithms necessitates a solid foundation in mathematical and engineering fundamentals. (level 3)
PO2	Creating programs with searching and sorting algorithms involves identifying, formulating, and analyzing complex engineering problems related to data organization and retrieval. (level 3)
PO3	Designing solutions for engineering problems involves creating efficient algorithms for searching and sorting. (level 2)
PO4	Utilizing searching and sorting algorithms involves conducting investigations into the efficiency and effectiveness of different approaches. (level 2)
PO6	By applying searching and sorting algorithms, the engineer considers societal impact, efficiency, and resource optimization. (level 3)
PO8	Ethical considerations in algorithmic choices, such as minimizing search times or ensuring fairness in sorting, demonstrate a commitment to ethical principles. (level 1)
PO12	Engaging with searching and sorting algorithms reflects a commitment to life-long learning. (level 3)
PSO1	Developing programs with searching and sorting algorithms directly contributes to professional skills in programming. (level 2)

PSO2	Developing programs with searching and sorting algorithms enhances problem-solving skills by addressing challenges in diverse computing environments through effective data organization, retrieval, and optimization. (level 2)
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<https://siiet.ac.in/>

Lr. No. SIET/BR22/Academic Calendar/2022/02

Date: 15.12.2022

REVISED ACADEMIC CALENDAR I B.TECH FOR THE ACADEMIC YEAR 2022-23 (BR22-REGULATIONS)

Dr. I. Satyanarayana,
Principal.

X3

To,
All the HOD's
Sir,

Sub: SIET (Autonomous)-Academic & Evaluation-Revised Academic Calendar for I B.Tech - I & II Semesters for the academic year 2022-2023-Reg.

The approved Academic Calendar for I B.Tech - I & II Semesters for the academic year 2022-23 is given below.

I-SEMESTER

S. NO	Description	Period		Duration
		From	To	
1.	Commencement of I Semester class work (including Induction programme)	03.11.2022		
2.	1 st Spell of Instructions	03.11.2022	28.12.2022	8 Weeks
3.	I Mid Examinations	29.12.2022	04.01.2023	1 Week
4.	Submission of First Mid Term Exam Marks to the Autonomous Section on or before	10.01.2023		
5.	2 nd Spell of Instructions	05.01.2023	02.03.2023	8 Weeks
6.	Second Mid Term Examinations	03.03.2023	09.03.2023	1 Week
7.	Preparation & Practical Examinations	10.03.2023	16.03.2023	1 Week
8.	Submission of Second Mid Term Exam Marks to the Autonomous Section on or before	16.03.2023		
9.	I Semester End Examinations	17.03.2023	01.04.2023	2 Weeks

II-SEMESTER

S. NO	Description	Period		Duration
		From	To	
1.	Commencement of II Semester class work	03.04.2023		
2.	1 st Spell of Instructions (including Summer Vacation)	03.04.2023	10.06.2023	10 Weeks
	Summer Vacation	15.05.2023	27.05.2023	2 Weeks
3.	I Mid Examinations	12.06.2023	17.06.2023	1 Week
4.	Submission of First Mid Term Exam Marks to the Autonomous Section on or before	23.06.2023		
5.	2 nd Spell of Instructions	19.06.2023	12.08.2023	8 Weeks
6.	II Mid Term Examinations	14.08.2023	19.08.2023	1 Week
7.	Preparation & Practical Examinations	21.08.2023	26.08.2023	1 Week
8.	Submission of Second Mid Term Exam Marks to the Autonomous Section on or before	26.08.2023		
9.	II Semester End Examinations	28.08.2023	09.09.2023	2 Weeks

Commencement of Class Work for II B.Tech I Semester - 11.09.2023

CHIEF OF EXAMINATIONS
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Class: ECE

Semester: I

W.E.F: 14-11-2022

LH: -D-209

	I 9:40- 10:30	II 10:30 - 11:20	III 11:20- 12:10	12:10- 12.45	IV 12.45- 1.35	V 1.35- 2.25	VI 2.25- 3.15	VII 3.15-4.00
MON	CPE	ES	M&C	L U N C H	AP	ENG	M&C	LIB
TUE	AP	M&C	ENG		CPE LAB			PPS(T)/AP(T)
WED	EWS/ELCS LAB				M&C	AP	CPE	ENG(T)/M&C(T)
THU	AP LAB				CPE	ENG	ES	AP(T)/CPE(T)
FRI	AP	CPE	ES		EWS/ELCS LAB			M&C(T)/ENG(T)
SAT	ENG	E-ECE LAB			CPE	M&C	AP	E-ECE(T)

Course Code	Course Name	Name of the Faculty	Course Code	Course Name	Name of the Faculty
MA101BS	Matrices and Calculus	T.THIRUPATHI REDDY	ME102ES	EWS LAB	M.V.B. KALYAN/B.SRINU NAIK
AP102BS	Applied Physics	B.SANTHI	AP105BS	Applied Physics - Lab	B.SANTHI/M.JANAIAH/ R. YADAGIRI RAO /M.MANISHA
CS102ES	C Programming for Engineers	B.RAJASHWARI	CS105ES	C Programming for Engineers Lab	B.RAJASHWARI/ D.SWAPNA
EN104HS	English for Skill Enhancement	G.VENKAT REDDY	EN107HS	English Language and Communication Skills Lab	G.VENKAT REDDY/E.PRARTHANA
MC101ES	Environmental Sciences	V.MOUNIKA	EC101ES	Elements of Electronics and Communication Engineering	Dr.S.SURESH/Dr.K.SRINIVAS A REDDY

B. Santhi
Class In-Charge

Ch. Saritha
Time Table Coordinator



[Signature]
Head of The Department
Dr. R. YADAGIRI RAO
M.Sc., B.Ed., M.Tech(CSE), Ph.D.
Head of the Department
Department of H&S
SRI INDU INSTITUTE OF ENGG & TECH
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C Programming for Engineers : Lesson Plan

S.NO	UNIT	TOPIC	Number of Sessions Planned	Teaching method/Aids	REFERENCE
1.	UNIT-I	Programming Introduction to components of a computer system	1	Black Board	T1
2.		Introduction to computer Memory	1	Black Board	T1
3.		processor, I/O devices, storage	1	Black Board	T1
4.		compilers, creating, compiling and executing a program	1	Black Board	T1
5.		operating system, the concept of assembler	1	Black Board	T1
6.		Representation of an algorithm	1	Black Board	T1
7.		Flow chart examples.	1	Black Board	T1
8.		Pseudocode with examples	1	Black Board	T1
9.		Converting algorithm to programs	1	Black Board	T1
10.		Program design and structured programming.	1	Black Board	T1
11.		Syntax and Logical Errors in compilation, object and executable code	1	Black Board	T1
12.		Standard I/O in C, Data types	1	Black Board	T1
13.		variables and Constants	1	Black Board	T1
14.		Storage Classes	1	Black Board	T1
15.			Operands and Operators	2	Black Board

16.	UNIT-II	Bitwise AND, OR, XOR and NOT operators	2	Black Board	T1	
17.		expressions and precedence, Expression evaluation and type conversion	1	Black Board	T1	
18.		Simple and Compound statements, if, if else	1	Black Board	T1	
19.		Dangling else, else-if ladder	1	Black Board	T1	
20.		Iteration with for, Nested for, while, do-while loops.	1	Black Board	T1	
21.		switch-case, break, goto, continue	1	Black Board	T1	
22.		UNIT-III	Introduction to functions	1	Black Board	T1
23.	Advantages of Modularizing a program		1	Black Board	T1	
24.	Types of Functions		2	Black Board	T1	
25.	Passing parameters to functions call by value		1	Black Board	T1	
26.	Call by reference, passing arrays to functions		1	Black Board	T1	
27.	Recursion with example programs		1	Black Board	T1	
28.	Arrays introduction: Array notation and representation		2	Black Board	T1	
29.	Manipulating array elements using multi dimensional arrays		1	Black Board	T1	
30.	Character arrays C strings String I/O		1	Black Board	T1	
31.	Array of strings		1	Black Board	T1	
32.	basic string functions available in C (strlen, strcat, strcpy, strstr etc.)		1	Black Board	T1	
33.	Pointers introduction		1	Black Board	T1	
34.			Declaring pointers	1	Black Board	T1
35.			Pointers Applications	1	Black Board	T1
36.		Dynamic memory allocation malloc	1	Black Board	T1	

37.	UNIT-IV	Calloc , realloc ,free examples	2	Black Board	T1
38.		Use of Pointers in self-referential structures,	1	Black Board	T1
39.		Files I/O functions	2	Black Board	T1
40.		Pre-processor commands : include, define, undef	1	Black Board	T1
41.		if, ifdef, ifndef, defining calling macros	1	Black Board	T1
42.		Command line arguments	1	Black Board	T1
43.		UNIT-V	Defining ,declaring structures	1	Black Board
44.	Defining unions difference between structures and union		1	Black Board	T1
45.	Unions and their arrays,passing structures		1	Black Board	T1
46.	Unions to functions		1	Black Board	T1
47.	Enums, bit fields		1	Black Board	T1
48.	Searching linear and Binary		1	Black Board	T1
49.	Bubble sort, Insertion sort		1	Black Board	T1
50.	Selection Sort, finding roots of equations		1	Black Board	T1
51.	Order of complexity through examples		1	Black Board	T1

TEXTBOOKS:

1. B. A. Forouzan and R. F. Gilberg -Programming & Data Structures, 3rd Ed., Cengage Learning`
2. Byron Gottfried - Schaum's Outline of Programming with C, McGraw-Hill

REFERENCEBOOKS:

1. Ajay Mittal - Programming in C: A practical approach, Pearson Education, 2010
2. Kernighan Brian W. and Ritchie Dennis M.- The C programming, Pearson Education.
3. J. R. Hanlyand, E. B. Koffman -Problem Solving and Program Design, 5th Ed., Pearson Education.
4. H. Cheng - C for Engineers and Scientists, McGraw-Hill International Edition
5. V. Rajaraman - Computer Basics and C Programming, PHI Learning, 2015.



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WEB REFERENCES

WR1: https://www.w3schools.com/c/c_intro.php

WR2: <https://www.geeksforgeeks.org/c-programming-language/>

WR3: <https://www.tutorialspoint.com/cprogramming/index.htm>

WR4: <https://www.freecodecamp.org/news/the-c-programming-handbook-for-beginners/>

VIDEO REFERENCES

V1: <https://nptel.ac.in/courses/106105171>

V2: <https://www.youtube.com/watch?v=irqbmMNs2Bo>

V3: https://www.youtube.com/watch?v=EjavYOFoJJ0&list=PLdo5W4Nhv31a8UcMN9-35ghv8qyFWD9_S

NOTES

<https://drive.google.com/file/d/1d5e4czLi4fgC63knbZXvATitHJqD3WVx/view?usp=sharing>



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POWER POINT PRESENTATION

https://docs.google.com/presentation/d/1C8y9M_J4P_nM0jknVhcBF4E2_X7Vnr8/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true

(For Introduction)

https://docs.google.com/presentation/d/16Y7hbuoWFTOqHjR5Zel-QPN366fPtOjP/edit?usp=drive_link&oid=112433602927689134255&rtpof=true&sd=true

(For Arrays)

<https://docs.google.com/presentation/d/1QiE2OWHpMduDrFMKRVDjHgHlvLos1lik/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Structures and Unions)

<https://docs.google.com/presentation/d/1XKCfqCQ2oIk4bDRYVdN28kZdZGSlgSLU/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Files)

<https://docs.google.com/presentation/d/1PrclPQLu6-BDYzcaEg5JrqGkbkHNIQwt/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For File Handling Functions)

<https://docs.google.com/presentation/d/1VnSO-NOGakRK7V07ELhzdAOnPbUw7y1X/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Functions)

<https://docs.google.com/presentation/d/1bQpiTuvFqFes0PhAFxqYhG99MmOp8TB/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Dynamic Functions)

<https://docs.google.com/presentation/d/1OArMa638yWNzUSJzDVNM3uPCwEHeHAFs/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Sorting Techniques)

<https://docs.google.com/presentation/d/1pZkuU4fBKjBKMhp924e5ERjz5r63MTzC/edit?usp=sharing&oid=112433602927689134255&rtpof=true&sd=true>

(For Searching Techniques)



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PREVIOUS QUESTION PAPERS

SIET 2022-2023 Academic Year:

Course Code: CS102ES

BR22

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

UGC Autonomous Institution and Affiliated to JNTUH, Hyderabad

B.Tech I Year I Semester Regular Examinations, March-2023

C PROGRAMMING FOR ENGINEERS

Electronics and Communication Engineering

X3

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 10 marks. All Questions Carry Equal Marks in Part A.
Part B consists of 5 Units. Answer any one full question from each unit.
Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

10x1=10 Marks

1. List the symbols in flow chart?
2. Distinguish between Input & Output Devices.
3. What are the logical operators used in C?
4. What is the significance of break statement?
5. What is the difference between user defined function and built-in function.
6. Write statement to initialize a string.
7. Explain how to define pointer to a function.
8. Write functions to open and close a file?
9. Explain about the typedef with an example.
10. List the dynamic memory handling functions used in 'C'.

PART-B

5x10=50 Marks

11. a) Discuss about primary and secondary memory in a computer.
b) Discuss about the compiler, interpreter, assembler, linker, loader? [5+5]
(or)
12. a) Write an algorithm to find the area of a circle. [5+5]
b) Write the structure of a C program
13. List the unary operators in C language. Give an example for each. [10]
(or)
14. Write a program in C to find the largest of 3 numbers. [10]
15. Explain with example programs, the difference between call-by-value and call-by-reference. [10]
(or)
16. a) Write string functions to copy one string to another, concatenate one string to another and reverse a string [5+5]
b) Write a program in C to find sum of integer elements stored in an array

17. a) What are the memory allocation functions? Explain them clearly. [5+5]
b) What are the features of pointers? Write a C program to print address of a variable

(or)

18. Explain command line arguments. Write a program in C to add three numbers using command line arguments. [10]

19. Using structures and arrays concept store data of five students. Data of student are name, age and height. [10]

(or)

20. a) Apply bubble sort of the following numbers: 12, 31, 25, 8, 32, 17 [5+5]
b) Illustrate algorithm for finding roots of quadratic equation?

Course Code: CS102ES

BR22

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

UGC Autonomous Institution and Affiliated to JNTUH, Hyderabad

B.Tech I Year I Semester Examinations, August/ September -2023

X3

C PROGRAMMING FOR ENGINEERS

Electronics and Communication Engineering

Time: 3 Hours

Max. Marks: 60

Note: This question paper contains two parts A and B.

i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 11 to 20) **carrying 10 marks each**. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from Part-B.

PART-A

10x1=10 Marks

1. List the different types of ROM.
2. What is operating System
3. List the bitwise operators
4. Write difference between break and continue.
5. What is the built-in function to find if two strings are equal.
6. Write syntax of function header.
7. List the built-in functions for dynamic memory allocation in C language.
8. How do you define a macro/constant in C language.
9. Create a structure to store name, age and date-of-birth of a student.
10. Write best-case complexity and worst-case complexity of bubble sort.

PART-B

5x10=50 Marks

11. Why we need storage classes? List and explain the various storage classes present in language 'C'. [10]
(or)
12. a) Discuss different data types in C with examples?
b) Compare syntax error with logical error. Give examples. [5+5]
13. Write a program in C to read a single digit number and print it in words using switch statement. Example: if input is 5, output must be Five [10]
(or)
14. a) Write the general syntax of for loop. Explain for loop using a flowchart.
b) Explain break and continue statement. [5+5]
15. What is recursion. Write a program to find factorial of a number using recursion. [10]
(or)
16. Write a program to multiply two matrices after checking if multiplication can be done on the two matrices. [10]

17. a) Explain the rules for pointer operations
b) Explain #include preprocessor directive [5+5]
- (or)
18. Write a program in C to copy the text in one file to another. [10]
19. a) Define union. Give the general template for union.
b) List out the differences between unions, structures and arrays [5+5]
- (or)
20. Write algorithm for Insertion sort. Apply Insertion sort of the following numbers:
12, 31, 25, 8, 32, 17 [10]



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Set-I

I B.TECH SEM-I MID-I EXAMINATION Dec-2022/Jan-2023

Year & Branch: ECE

Date & Session : 31-12-2022 & FN

Subject : C PROGRAMMING FOR ENGINEERS

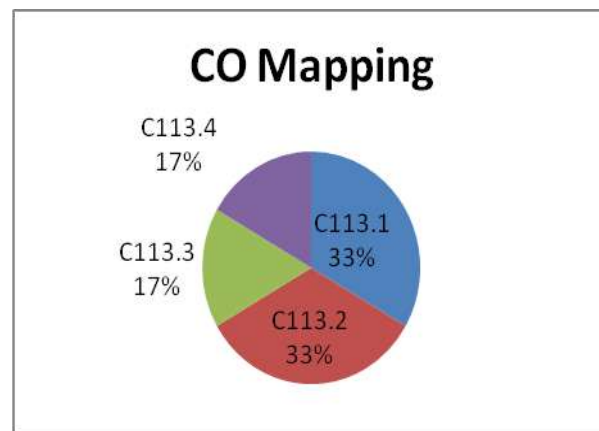
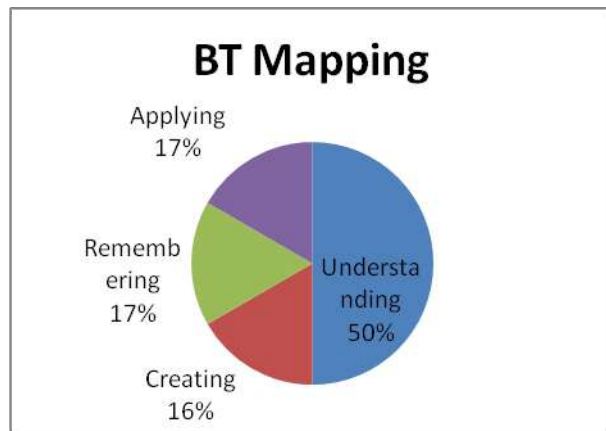
Marks: 20

Time : 2 Hours

Part-B

Answer any **FOUR** Questions. All Question Carry Equal Marks.

1. Explain the Central Processing unit in detail (C113.1) (Understanding(L2))
2. Explain different types of data types used in C with Example. (C113.2) (Understanding(L2))
3. Discuss structure of C program with example. (C113.1) (Creating (L6))
4. Define an expression? How can you evaluate an expression? (C113.2) (Remembering(L1))
5. Explain switch case with example. (C113.3) (Understanding(L2))
6. Develop a C program to illustrate call-by-value parameter passing technique. (C113.4) (Applying (L3))



MID I KEY link : <https://drive.google.com/file/d/1AGZDG07uNg73Htc9lxbdUsG3XeKbiTYP/view?usp=sharing>

MID-I SAMPLE STUDENT SCRIPT

<https://drive.google.com/file/d/1HNkihs3Hjd0JbxLhvQOJdtq9BDS0nJU/view?usp=sharing>

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Sheriguda(V), Ibrahimpatnam(M), R.R Dist., Telangana - 501 510

I B.Tech I - Mid Examinations, Dec-2022/Jan-2023

X3

BR22

Branch: ECE

Subject: C PROGRAMMING FOR ENGINEERS

Date: 31-12-2022 (FN)

Marks: 10

Student Name: H.T.No.:

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Part-A

Objective/Quiz Paper

The objective/quiz paper is set with multiple choice, fill-in the blanks and match the following type of questions for a total of 10 marks.

Multiple choice:

1. Size of float, double and long double in Bytes are.? []
A) 4, 8, 16 B) 4, 8, 10 C) 2, 4, 6 D) 4, 6, 8
2. The errors that can be pointed out by the compiler are []
A) syntax errors B) semantic errors C) logical errors D) internal errors
3. If i, j, k are integer variable with values 1, 2, 3 respectively, then what is the value of the expression []
 $!(j + k) > (i + 5)$
A) 6 B) 5 C) 1 D) 0
4. Any C Program []
A) Must contain at least one function. B) Need not contain any function.
C) Needs input data. D) None of the above

Fill in the blanks:

5. C program execution begins from _____
6. The key word else can be used with _____
7. _____ is the built in multiway decision statement in C.
8. Dynamic allocation of memory is done by _____ operator.

Match the following:

9.

- | | | |
|-------------------|-----|---------------------|
| I. Unsigned char | () | A. -32,768 to 32767 |
| II. int | () | B. -128 to 127 |
| III. char | () | C. 0 to 65535 |
| IV. Unsigned char | () | D. 0 to 255 |

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Mid-I Objective/Quiz Paper Key

Multiple Choices:

1. A
2. C
3. C
4. A

Fill in the blanks:

1. main
2. if
3. switch
4. &

Match the following:

1. i. D
ii. A
iii. B
iv. C



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Set-II

I B.TECH SEM-I MID-II EXAMINATION March-2023

Year & Branch: ECE

Subject : C PROGRAMMING FOR ENGINEERS

Marks: 20

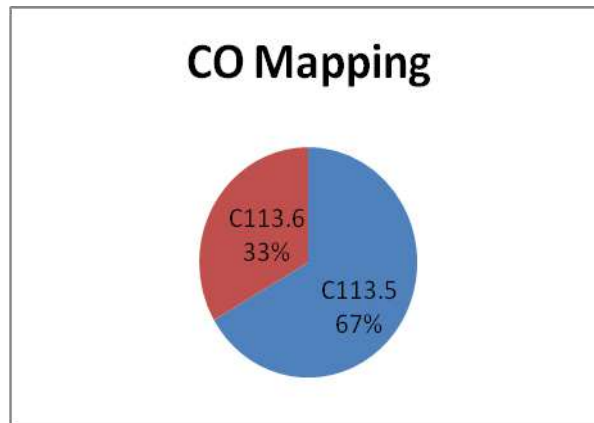
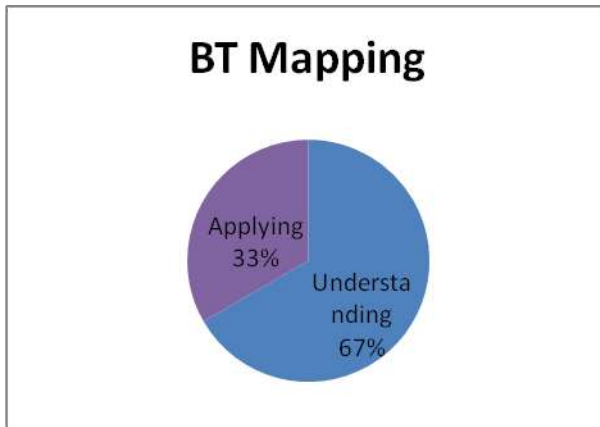
Date & Session : 06-03-2023 &FN

Time : 2 Hours

Part-B

Answer any **FOUR** Questions. All Question Carry Equal Marks.

1. Explain any two string manipulation functions with examples? (113.5)(Understanding(L2))
2. What is the use of free() function in Dynamic Memory Allocation? Write a c program to calloc() function. (113.5)(Understanding(L2))
3. Explain various pre-processor directives. (113.5)(Understanding(L2))
4. Explain enum data type with an example. (113.5)(Understanding(L2))
5. Apply selection sort? Write algorithm for the same. (113.6) (Applying (L3))
6. Develop a c program to insertion sort. (113.6)(Applying (L3))



MID-II KEY link : https://drive.google.com/file/d/1XOA_pExBIjaQ_gPk3bDPx5kOKgvtmpDv/view?usp=sharing

MID-II SAMPLE STUDENT SCRIPT :

https://drive.google.com/file/d/1sobs_GYCDBiScYHKP2KGU3_L649UsJGM/view?usp=sharing



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I B.Tech II - Mid Examinations, March-2023

X3

BR22

Branch: ECE

Date: 06-03-2023 (FN)

Subject: C PROGRAMMING FOR ENGINEERS

Marks: 10

Student Name:

H.T.No.:

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Part-A

Objective/Quiz Paper

The objective/quiz paper is set with multiple choice, fill-in the blanks and match the following type of questions for a total of 10 marks.

Multiple choices:

- What is right way to initialize arrays? []
 (A) int num[6]={2,5,6,7,8,9}; (B) int num[]={4,5,6};
 (C) int num(6)={2,5,6,7,8,9}; (D) int num(6)= {2,5,6,7,8,9};
- In C a pointer variable to an integer can be created by the declaration. []
 (A)int p*; (B) int *p; (C) int +p; (D) int \$p;
- We use malloc and calloc for []
 A. Static memory allocation B. Dynamic memory allocation
 C. Both dynamic and static memory allocation D. None of the above
- What is the correct syntax of enum? []
 A. enum flag(constant1, constant2, constant3,);
 B. enum flag(constant1, constant2, constant3,);
 C. enum flag(constant1, constant2, constant3,);
 D. enumflag(constant1, constant2, constant3,);

Fill in the blanks:

- An Array elements are always stored in _____ memory location.
- In pointers Asterisk(*) known as _____ operator.
- The size of the following union,

```

union demo
{
float x;
int y;
char z[10];
};

```

- where an int occupies 4 bytes of memory is _____
- _____ keyword is used to define a structure.

Match the following:

- | | | | |
|-----|---------|-----|--|
| i | fputc() | () | A) used to write a null-terminated string to the file. |
| ii | fputs() | () | B) used to read a string from a file |
| iii | fopen() | () | C) opens the file. |
| iv | fgets() | () | D) used to write characters to the file |



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Mid-II Objective/Quiz Paper Key

Multiple Choices:

5. A
6. B
7. B
8. A

Fill in the blanks:

5. Sequential
6. Dereferencing Operator
7. 10 bytes
8. Struct

Match the following:

2. i. D
- ii. A
- iii. C
- iv. B



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I-MID C PROGRAMMING FOR ENGINEERS ASSIGNMENT

1. Explain I/O devices in detail? Explain Operating System.(C113.1) (Understanding(L2))
2. Explain typical steps for entering ,compiling and executing ‘C’ programs.
(C113.1)(Understanding(L2))
3. What is a flow chart? Give the symbols of flow chart explain with one example.
(C113.1)(Remembering(L1))
4. Explain different types of data types used in C with Example. (C113.2) (Understanding(L2))
5. Discuss structure of C program with example. (C113.1) (Creating (L6))
6. List and explain the various storage classes present in language ‘C’.
(C113.1) (Remembering(L1))
7. Define an expression? How can you evaluate an expression? (C113.2)
(Remembering(L1))
8. Explain arithmetic and bitwise operators with examples. (C113.2) (Understanding(L2))
9. Explain else-if ladder with the help of flowchart and program. (C113.3) (Understanding(L2))
10. Develop a C program for printing the following pattern on the screen. (C113.3)
(Applying (L3))

```
*
* *
* * *
* * * *
* * * * *
```

11. Explain switch case with example. (C113.3) (Understanding(L2))
12. What is meant by type conversion? Explain about implicit and explicit type conversion with examples. (C113.2) (Remembering(L1))
13. What are the advantages of functions? (C113.4) (Remembering(L1))
14. Develop a C program to illustrate call-by-value parameter passing technique.
(C113.4) (Applying (L3))
15. Demonstrate the various control statements available in ‘C’?
(C113.3) (Understanding(L2))



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II-MID C PROGRAMMING FOR ENGINEERS ASSIGNMENT

1. Develop a c program for Addition of two matrices?(C113.5) (Applying (L3))
2. Explain malloc() function with Program? (C113.5) (Understanding(L2))
3. How to declare a pointers with example program?write applications of pointers.
(C113.5)(Remembering(L1))
4. How to read text from a file? Explain with example c program.(C113.5)(Remembering(L1))
5. What is meant by structure? Discuss with a C-program. (113.5)(Remembering(L1))
6. Apply bubble sort on. (113.6)(Applying (L3))

85	53	96	35	27	87	37	12	90	23
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7. Explain any two string manipulation functions with examples?(113.5)(Understanding(L2))
8. What is the use of free() function in Dynamic Memory Allocation? Write a c program to calloc() function. (113.5)(Understanding(L2))
9. Explain various pre-processor directives. (113.5)(Understanding(L2))
10. Explain enum data type with an example. (113.5)(Understanding(L2))
11. Develop a c program to insertion sort. (113.6)(Applying (L3))
12. Apply selection sort? Write algorithm for the same. (113.6) (Applying (L3))

20	12	10	15	20
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(Approved by AICTE, New Delhi and Affiliated to JNTUH, Hyderabad)

Khalsa Ibrahimpatnam, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist., Telangana – 501510

I-MID & II-MID C PROGRAMMING FOR ENGINEERS ASSIGNMENT PROOFS

MID-I link :

<https://drive.google.com/file/d/1t0pXtT4MvYmvjAUGJJI-2MBvcaTiCMaL/view?usp=sharing>

MID-II link :

https://drive.google.com/file/d/1zR_HLLamKtAXMf6bDgkILqc3-HG_wo88/view?usp=sharing



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SCHEME OF EVALUATION WITH CO and BTL MAPPING

SCHEME OF EVALUATION-C PROGRAMMING FOR ENGINEERS (MID-I)(Set-I)		
<i>Instructions:</i>		
a) Any answer by alternate method should be valued and suitably awarded.		
b) All answers (including extra, stuck off and repeated) should be valued. Answers with maximum marks must be considered.		
Qn No	Description of Answer	Marks
1.	Explanation	1
	Central processing units description	4
2.	Integer data type	1
	Float data type	1
	Double data type	1
	Char data type	1
	Example	1
3.	Structure of C	3
	Example Program	2
4.	Expression Definition and different types	3
	Evaluation example	2
5.	Switch Explanation with syntax	2
	Example Program	3
6.	Call- by value parameter passing technique program	5
TOTAL		20



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Khalsa Ibrahimpatnam, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist., Telangana – 501510

SCHEME OF EVALUATION-C PROGRAMMING FOR ENGINEERS (MID-II)(Set-2)		
Instructions:		
a) Any answer by alternate method should be valued and suitably awarded.		
b) All answers (including extra, stuck off and repeated) should be valued. Answers with maximum marks must be considered.		
Qn No	Description of Answer	Marks
1.	Strlen(),Strcat(),Strrev(),strcpy(),..etc any two explanation with syntax	3
	Example programs	2
2.	Use of free() function	2
	Example program	3
3.	Pre-processor directives—include, define, undef, if, I fdef, ifndef	5
4.	Enum data type explanation with syntax	2
	Example program	3
5.	Selection sort example	3
	Algorithm	2
6.	Insertion sort program	5
TOTAL		20



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Result Analysis:

ECE

Course Title	C PROGRAMMING FOR ENGINEERS
Course Code	CS103ES
Programme	B.Tech
Year & Semester	I year I- semester
Regulation	BR22
Course Faculty	D.RAJESHWARI , Assistant Professor , CSE

Weak Students:

S No	Roll no	Intermediate Marks	Internal-I Status (40)	Internal-II Status (40)
1	22X31A0401	58%	21	22
2	22X31A0403	69%	21	24
3	22X31A0413	68.5%	25	30
4	22X31A0428	59.4%	22	24
5	22X31A0429	55.9%	23	28
6	22X31A0430	41.2%	20	27
7	22X31A0431	69.6%	26	23
8	22X31A0432	59.7%	20	27
9	22X31A0435	58.5%	21	26
10	22X31A0440	50.2%	21	24
11	22X31A0443	63.6%	23	26
12	22X31A0448	55%	22	24
13	22X31A0454	55.3%	23	24

Advanced learners:

S No	Roll No	Intermediate Marks	Gate Material
1	22X31A0402	95.9%	For searching and sorting techniques
2	22X31A0434	90.9%	
3	22X31A0442	93.8%	
4	22X31A0449	91.4%	
5	22X31A0455	91%	
6	22X31A0458	95.6	
7	22X31A0459	93	



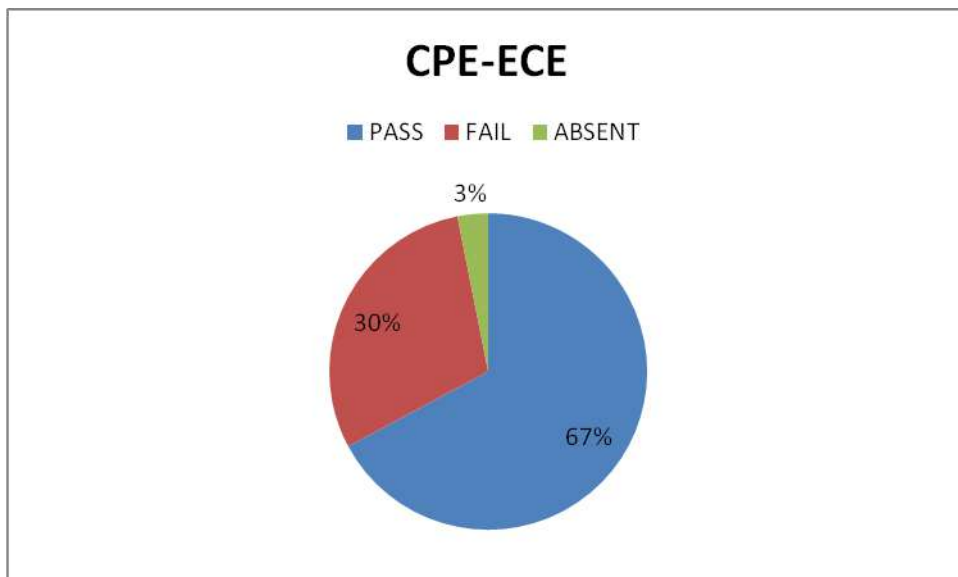
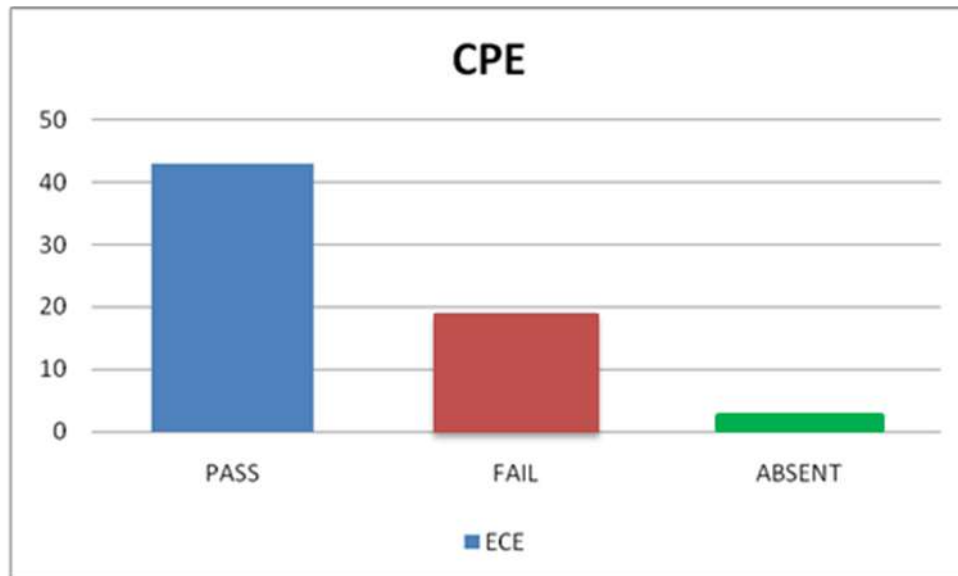
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RESULT ANALYSIS AT END OF SEMISTER

Branch : ECE

Subject: C PROGRAMMING FOR ENGINEERS





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Khalsa Ibrahimpatnam, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist., Telangana – 501510

DEPARTMENT OF HUMANITIES AND SCIENCE

REMEDIAL CLASSES TIME TABLE

REMEDIAL CLASSES TIME TABLE

DAY/ PERIOD	MON 4.00-5.00	TUE 4.00-5.00	WED 4.00-5.00	THUR 4.00-5.00	FRI 4.00-5.00	SAT 4.00-5.00
CSE-A	M&C	PPS	BEE	EG	EC	M&C
CSE-B	BEE	M&C	EG	PPS	EC	BEE
CSE-C	EC	EG	BEE	M&C	PPS	EC
DS	M&C	EC	BEE	PPS	EG	EC
CYBER	PPS	M&C	EC	EG	BEE	M&C
AIML-A	AP	PPS	M&C	ENG	AP	M&C
AIML-B	M&C	EG	PPS	AP	M&C	EG
AI&DS	M&C	ENG	AP	PPS	AP	PPS
IOT	PPS	AP	M&C	EG	M&C	EG
ECE	AP	ENG	M&C	CPE	AP	CPE
CIVIL	EG	AP	M&C	CPDS	M&C	EG


Head of the Department
Department of H&S

SRI INDU INSTITUTE OF ENGG & TECH
Sheriguda(V), Ibrahimpatnam (M), R.R. Dist-501 510


PRINCIPAL
Sri Indu Institute of Engineering & Tech.
Sheriguda(VIII), Ibrahimpatnam
R.R. Dist. Telangana-501 510.

CO-5																			
CO-6																			

CO	Subj	obj		Asgn	Overall	Level
CO-1	32%	81%		100%	71%	3.00
CO-2	40%	55%		100%	65%	3.00
CO-3	40%	70%		100%	70%	3.00
CO-4						
CO-5						
CO-6						

Attainment Level	
1	40%
2	50%
3	60%

Attainment (Internal 1 Examination) = **3.00**

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities & Sciences

Course Outcome Attainment (Internal Examination-2)



Name of the faculty: B.RAJESHWARI

Academic Year:

2022-2023

Branch & Section: ECE

Examination:

II Internal

Course Name: CPE

Year: I

Semester: I

S.No	HT No.	Q1a	Q1b	Q1c	Q2a	Q2b	Q2c	Q3a	Q3b	Q3c	Q4a	Q4b	Q4c	Q5a	Q5b	Q5c	Q6a	Q6b	Q6c	Obj	A2	viva/ npt
Max. Marks ==>		5			5			5			5			5			5			10	5	5
1	22X31A0401	1			1			3			1									6	5	5
2	22X31A0402							3			2			3			4			10	5	5
3	22X31A0403	1			1			1			2									9	5	5
4	22X31A0404				2						1						2			9	5	5
5	22X31A0405				4			3						5			5			10	5	5
6	22X31A0406	4			4			3						2						10	5	5
7	22X31A0407				2						1						2			10	5	5
8	22X31A0408				4												4			9	5	5
9	22X31A0409				2			3			4									10	5	5
10	22X31A0410	2			2			3									2			10	5	5
11	22X31A0411	3			2						0									10	5	5
12	22X31A0412				2			2												10	5	5
13	22X31A0413													5			5			10	5	5
14	22X31A0414	3			3			3									2			10	5	5
15	22X31A0415	2			4			2												8	5	5
16	22X31A0416	2															2			10	5	5
17	22X31A0417	3			1															10	5	5
18	22X31A0418	4																		10	5	5
19	22X31A0419	5																		10	5	5
20	22X31A0420	1			2			1												10	5	5
21	22X31A0421										4									10	5	5
22	22X31A0422																					
23	22X31A0423	2									3			3			2			10	5	5
24	22X31A0424	4			3															10	5	5
25	22X31A0425				1												4			10	5	5
26	22X31A0426	4			3						2						4			10	5	5
27	22X31A0427				2						2			2			4			10	5	5
28	22X31A0428										4									10	5	5
29	22X31A0429	3			1			2			2									10	5	5
30	22X31A0430							3			3			1						10	5	5
31	22X31A0431							1									2			10	5	5
32	22X31A0432													3			4			10	5	5
33	22X31A0433	1			2			4			2									10	5	5
34	22X31A0434							3			2			1			3			10	5	5
35	22X31A0435	0												3			3			10	5	5
36	22X31A0436				2												3			10	5	5
37	22X31A0437																					
38	22X31A0438				4															10	5	5
39	22X31A0439							2			2			3			3			9	5	5
40	22X31A0440				4			1												9	5	5
41	22X31A0441	2						4			4						4			10	5	5
42	22X31A0442				1			3			3									9	5	5
43	22X31A0443	1			3						1						1			10	5	5
44	22X31A0444				3															10	5	5
45	22X31A0445	3			1						2						1			10	5	5
46	22X31A0446	2			1						3									10	5	5
47	22X31A0447	1						3			2									10	5	5
48	22X31A0448				1						1			1			1			10	5	5
49	22X31A0449	5			4			5			3									10	5	5
50	22X31A0450	2			1			1			2									10	5	5
51	22X31A0451	2			2															10	5	5



SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities & Sciences

Course Outcome Attainment (University Examinations)

Name of the faculty : B.RAJESHWARI

Academic Year: 2022-2023

Branch & Section: ECE

Year / Semester: I/I

Course Name: CPE

S.No	Roll Number	Marks Secured
1	22X31A0401	16
2	22X31A0402	25
3	22X31A0403	24
4	22X31A0404	15
5	22X31A0405	12
6	22X31A0406	25
7	22X31A0407	11
8	22X31A0408	13
9	22X31A0409	37
10	22X31A0410	25
11	22X31A0411	21
12	22X31A0412	13
13	22X31A0413	25
14	22X31A0414	45
15	22X31A0415	24
16	22X31A0416	10
17	22X31A0417	5
18	22X31A0418	12
19	22X31A0419	21
20	22X31A0420	5
21	22X31A0421	23
22	22X31A0422	A
23	22X31A0423	21
24	22X31A0424	6
25	22X31A0425	21
26	22X31A0426	23
27	22X31A0427	23
28	22X31A0428	14
29	22X31A0429	16
30	22X31A0430	17
31	22X31A0431	11
32	22X31A0432	21
33	22X31A0433	21
34	22X31A0434	34
35	22X31A0435	21

S.No	Roll Number	Marks Secured
36	22X31A0436	21
37	22X31A0437	A
38	22X31A0438	21
39	22X31A0439	23
40	22X31A0440	21
41	22X31A0441	33
42	22X31A0442	22
43	22X31A0443	31
44	22X31A0444	21
45	22X31A0445	25
46	22X31A0446	15
47	22X31A0447	26
48	22X31A0448	9
49	22X31A0449	27
50	22X31A0450	27
51	22X31A0451	18
52	22X31A0452	17
53	22X31A0453	33
54	22X31A0454	21
55	22X31A0455	41
56	22X31A0456	21
57	22X31A0457	26
58	22 X31A0458	32
59	22X31A0459	36
60	22X31A0460	34
61	22X31A0461	23
62	22X31A0462	34
63	22X31A0463	38
64	22X31A0464	35

Max Marks	60
Class Average mark	22
Number of students performed above the target	29
Number of successful students	64
Percentage of students scored more than target	45%
Attainment level	2

Attainment Level	% students
1	40%
2	50%
3	60%



SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities & Sciences

Course Outcome Attainment

Name of the faculty : B.RAJESHWARI

Academic Year: 2022-2023

Branch & Section: ECE

Examination: I Internal

Course Name: CPE

Year: I

Semester: I

Course Outcomes	1st Internal Exam	2nd Internal Exam	Internal Exam	University Exam	Attainment Level
CO1	3.00		3.00	2.00	2.40
CO2	3.00		3.00	2.00	2.40
CO3	3.00		3.00	2.00	2.40
CO4		3.00	3.00	2.00	2.40
CO5		3.00	3.00	2.00	2.40
CO6		3.00	3.00	2.00	2.40
Internal & University Attainment:			3.00	2.00	
Weightage			40%	60%	
CO Attainment for the course (Internal, University)			1.20	1.20	
CO Attainment for the course (Direct Method)			2.40		

Overall course attainment level

2.40



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Humanities & Sciences

Program Outcome Attainment (from Course)

Name of Faculty: B.RAJESHWARI

Academic Year: 2022-2023

Branch & Section: ECE

Year: I

Course Name: CPE

Semester: I

CO-PO mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C113.1	3	2	1	1		1						1		-
C113.2	3	2	3	2		2						1		3
C113.3	3	3	2	1		2		1				1		3
C113.4	3	3	3	2		1		1						2
C113.5	3	2	1	1				2				2	2	3
C113.6	3	3	2	2		3		1				3		2
C113	3.00	2.50	2.00	1.50		1.80		1.25				1.60	2.00	2.60

CO	Course Outcome Attainment
	2.40
CO1	2.40
CO2	2.40
CO3	2.40
CO4	2.40
CO5	2.40
CO6	2.40
Overall course attainment level	2.40

PO-ATTAINMENT

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO Attainment	2.40	2.00	1.60	1.20		1.44		1.00				1.28	1.60	2.08

CO contribution to PO - 33%, 67%, 100% (Level 1/2/3)

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ATTENDANCE REGISTER

https://drive.google.com/file/d/1CMvJHYPfvPEkBCOjq3MAJDaOy_hi5-bx/view?usp=sharing