



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

**DEPARTMENT OF**

**HUMANITIES & BASIC SCIENCES**

**COURSE FILE**

**Branch: CSE**

**Class: B.Tech- I Year- I SEM**

**Subject: PROGRAMMING FOR PROBLEM SOLVING**

**Code: R22CSE1113**

**Academic Year: 2022 - 2023**

**Regulation: R22**

**Core/Elective/H&S: H&S**

**Credits: 03**

**No of Theory Periods per week: 05**

**No of Tutorial Periods per week: 01**

**Prepared By**

**Name: D.MOUNIKA/ K.S.ARCHANA/ G.ANITHA**

**Designation: Assistant Professor**

**Verified By**

**Head of the Department:**

**Name : N. SHAILAJA**



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**

**Department of Computer Science and Engineering**

**INSTITUTE VISION AND MISSION**

**INSTITUTION VISION**

To be a premier Institution in Engineering & Technology and Management with competency, values and social consciousness

**INSTITUTION MISSION**

- IM1** : Provide high quality academic programs, training activities and research facilities.
- IM2** : Promote Continuous Industry-Institute interaction for employability, Entrepreneurship, leadership and research aptitude among stakeholders.
- IM3** : Contribute to the economical and technological development of the region, state and nation.

**PRINCIPAL**



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**

**Department of Computer Science and Engineering**

**DEPARTMENT VISION**

To be a technologically adaptive centre for computing by grooming the students as top notch professionals

**DEPARTMENT MISSION**

**DM1:** To offer quality education in computing.

**DM2:** To provide an environment that enables overall development of all the stakeholders.

**DM3:** To impart training on emerging technologies like Data Analytics, Artificial Intelligence and Internet of Things

**DM4:** To encourage participation of stakeholders in research and development

**HOD**



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

**PROGRAM OUTCOMES (POs) & PROGRAM SPECIFIC OUTCOMES (PSOs)**

PO	Description
PO 1	<b>Engineering Knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	<b>Problem Analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	<b>Design / development of Solutions:</b> 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.
PO 4	<b>Conduct investigations of complex problems:</b> 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.
PO 5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO 6	<b>The engineer and Society:</b> 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.
PO 7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
PO 9	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	<b>Communication:</b> 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, and give and receive clear instructions.
PO 11	<b>Project management and finance:</b> 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.
PO 12	<b>Life-long learning:</b> 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

<b>Program Specific Outcomes</b>	
<b>PSO 1</b>	To apply the knowledge of Software Engineering, Data Communication, Web Technology and Operating Systems for building IOT and Cloud Computing applications
<b>PSO 2</b>	Design, develop and test software systems for world-wide network of computers to provide solutions to real world problems
<b>PSO3</b>	Analyze and recommend the appropriate IT infrastructure required for the implementation of a project.

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**Department of Computer Science and Engineering**

### **Program Educational Objectives (PEOs) - B.Tech in CSE**

**PEO1: Higher Studies:** Graduate with an ability to pursue higher studies and get employment in reputed institutions and organization

**PEO2: Domain Knowledge:** Graduate with an ability to design and develop a product.

**PEO3: Professional Career:** Graduate with excellence by multidisciplinary approach to achieve successful professional career.

**PEO4: Life Long Learning:** Graduate with an ability to learn advanced skills to face professional competence through life long learning.

**HOD**

**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
(An Autonomous Institution under UGC, New Delhi)

**B.Tech. - I Year – I Semester**

L	T	P	C
3	0	0	3

**(R22CSE1113) PROGRAMMING FOR PROBLEM SOLVING**

**Course Objectives:**

- To learn the fundamentals of computers.
- To understand the various steps in program development.
- To learn the syntax and semantics of the C programming language.
- To learn the usage of structured programming approaches in solving problems.

**Course Outcomes:** The student will learn

- To write algorithms and to draw flowcharts for solving problems.
- To convert the algorithms/flowcharts to C programs.
- To code and test a given logic in the C programming language.
- To decompose a problem into functions and to develop modular reusable code.
- To use arrays, pointers, strings and structures to write C programs.
- Searching and sorting problems.

**UNIT - I: Introduction to Programming**

Compilers, compiling and executing a program.

Representation of Algorithm - Algorithms for finding roots of a quadratic equations, finding minimum and maximum numbers of a given set, finding if a number is prime number Flowchart/Pseudocode with examples, Program design and structured programming

**Introduction to C Programming Language:** variables (with data types and space requirements), Syntax and Logical Errors in compilation, object and executable code, Operators, expressions and precedence, Expression evaluation, Storage classes (auto, extern, static and register), type conversion, The main method and command line arguments Bitwise operations: Bitwise AND, OR, XOR and NOT operators

Conditional Branching and Loops: Writing and evaluation of conditionals and consequent branching with if, if-else, switch-case, ternary operator, goto, Iteration with for, while, do- while loops I/O: Simple input and output with scanf and printf, formatted I/O, Introduction to stdin, stdout and stderr. Command line arguments

**UNIT - II: Arrays, Strings, Structures and Pointers:**

Arrays: one and two dimensional arrays, creating, accessing and manipulating elements of arrays Strings: Introduction to strings, handling strings as array of characters, basic string functions available in C (strlen, strcat, strcpy, strstr etc.), arrays of strings

Structures: Defining structures, initializing structures, unions, Array of structures

Pointers: Idea of pointers, Defining pointers, Pointers to Arrays and Structures, Use of Pointers in self-referential structures, usage of self referential structures in linked list (no implementation) Enumeration data type

**UNIT - III: Preprocessor and File handling in C:**

Preprocessor: Commonly used Preprocessor commands like include, define, undef, if, ifdef, ifndef Files: Text and Binary files, Creating and Reading and writing text and binary files, Appending data to existing files, Writing and reading structures using binary files, Random access using fseek, ftell and rewind functions.

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## BR22 – B.TECH. – COMPUTER SCIENCE & ENGINEERING

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### **UNIT - IV: Function and Dynamic Memory Allocation:**

Functions: Designing structured programs, Declaring a function, Signature of a function, Parameters and return type of a function, passing parameters to functions, call by value, Passing arrays to functions, passing pointers to functions, idea of call by reference, Some C standard functions and libraries

Recursion: Simple programs, such as Finding Factorial, Fibonacci series etc., Limitations of Recursive functions  
Dynamic memory allocation: Allocating and freeing memory, Allocating memory for arrays of different data types

### **UNIT - V: Searching and Sorting:**

Basic searching in an array of elements (linear and binary search techniques), Basic algorithms to sort array of elements (Bubble, Insertion and Selection sort algorithms), Basic concept of order of complexity through the example programs

### **TEXT BOOKS:**

1. Jeri R. Hanly and Elliot B.Koffman, Problem solving and Program Design in C 7th Edition, Pearson
2. B.A. Forouzan and R.F. Gilberg C Programming and Data Structures, Cengage Learning, (3rd Edition)

### **REFERENCE BOOKS:**

1. Brian W. Kernighan and Dennis M. Ritchie, The C Programming Language, Prentice Hall of India
2. E. Balagurusamy, Computer fundamentals and C, 2nd Edition, McGraw-Hill
3. Yashavant Kanetkar, Let Us C, 18th Edition, BPB
4. R.G. Dromey, How to solve it by Computer, Pearson (16th Impression)
5. Programming in C, Stephen G. Kochan, Fourth Edition, Pearson Education.
6. Herbert Schildt, C: The Complete Reference, Mc Graw Hill, 4th Edition
7. Byron Gottfried, Schaum's Outline of Programming with C, McGraw-Hill



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Department of Computer Science and Engineering

## Course Objectives and Course Outcomes

**Course Name: Programming for problem solving (C113)**

Course objectives are the long-term goals set for students who take this course. For students to:

1. To learn the fundamentals of computers .
2. To understand the various steps.
3. To learn the syntax and semantics of C programming languages.
4. To learn the usage of structured programming approaches in solving problems. .

### Course Outcomes

At the end of the course student will be able:

<b>Course Outcomes (COs)</b>	
<b>C113.1</b>	To write algorithms and to draw flowcharts for solving problems.(L6-create)
<b>C113.2</b>	To convert the algorithms/flowcharts to C programs.(L3-Apply)
<b>C113.3</b>	To code and test a given logic in C programming language. (L4-Analyze)
<b>C113.4</b>	To decompose a problem into functions and to develop modular reusable code. (L4-Analyze)
<b>C113.5</b>	To use arrays, pointers, strings and structures to write C programs. (L3-Apply)
<b>C113.6</b>	Searching and Sorting problems .(L3-Apply)

Faculty



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

### Justification of CO's and PO's Mapping

SUB NAME: Programming for problem solving (C113)

SUB CODE: R22CSE1113

Course Outcomes	Statements
C113.1	To write algorithms and to draw flowcharts for solving problems.
C113.2	To convert the algorithms/flowcharts to C programs.
C113.3	To code and test a given logic in C programming language.
C113.4	To decompose a problem into functions and to develop modular reusable code.
C113.5	To use arrays, pointers, strings and structures to write C programs.
C113.6	Searching and Sorting problems.

#### Course Articulation Matrix

Course Outcome	P O 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	P O 11	P O 12	PS O 1	PS O 2	PS O 3
C113.1	2	2	1	1	2	-	-	-	-	1	-	-	2	2	1
C113.2	3	2	2	1	3	-	-	-	-	-	1	-	2	2	2
C113.3	2	1	1	1	3	-	-	-	-	1	1	-	3	2	1
C113.4	2	2	2	1	3	-	-	-	-	1	-	-	2	1	1
C113.5	2	2	2	2	3	-	-	-	-	-	-	-	2	1	1
C113.6	2	2	2	1	3	-	-	-	-	-	-	-	1	2	1
<b>C113</b>	<b>2.16</b>	<b>1.83</b>	<b>1.66</b>	<b>1.16</b>	<b>2.83</b>	-	-	-	-	<b>0.5</b>	<b>0.33</b>	-	<b>2</b>	<b>1.66</b>	<b>1.16</b>



Lr.No.SICET/AUTO/DAE/BR-22/Academic Cal./655/2022

Date: 27.10.2022

2002

**I B.TECH. ACADEMIC CALENDAR**  
**ACADEMIC YEAR : 2022-2023**

Dr.G. SURESH,  
Principal,

To,  
All the HODs  
Sir,

Sub: SICET (Autonomous) - Academic & Evaluation - Academic Calendar for **I B.Tech - I & II Semester** for the academic year **2022-23** – Reg.

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

**I SEMESTER**

S.NO.	EVENT	PERIOD	DURATION
1.	Induction & Orientation Programme	<b>03.11.2022</b>	
2.	1 <sup>st</sup> Spell of Instructions for covering First Two and a half Units	03.11.2022 – 28.12.2022	8 Weeks
3.	I Mid Examinations	29.12.2022 – 04.01.2023	1 Week
4.	Submission of I Mid Term Examination Marks to the Autonomous Section on or before	10.01.2023	
5.	2 <sup>nd</sup> Spell of Instructions for covering Remaining Two and a half Units	05.01.2023 – 02.03.2023	8 Weeks
6.	II Mid Examinations	03.03.2023 – 09.03.2023	1 Week
7.	Preparation & Practical Examinations and Remedial Mid Test (RMT)	10.03.2023 – 16.03.2023	1 Week
8.	Submission of II Mid Term Examination Marks to the Autonomous Section on or before	16.03.2023	
9.	I Semester End Examinations	17.03.2023 – 01.04.2023	2 Weeks
<b>Commencement of Class-Work for I B.Tech - II Semester 03.04.2023</b>			

**II SEMESTER**

S.NO.	EVENT	PERIOD	DURATION
1.	Commencement of II Sem Class Work	<b>03.04.2023</b>	
2.	1st Spell of Instructions for covering First Two and a half Units (Including Summer Vacation)	03.04.2023 – 10.06.2023	10 Weeks
	<b>Summer Vacation</b>	15.05.2023 – 27.05.2023	2 Weeks
3.	I Mid Examinations	12.06.2023 – 17.06.2023	1 Week
4.	Submission of I Mid Term Examination Marks to the Autonomous Section on or before	23.06.2023	
5.	2nd Spell of Instructions for covering Remaining Two and a half Units	19.06.2023 – 12.08.2023	8 Weeks
6.	II Mid Examinations	14.08.2023 – 19.08.2023	1 Week
7.	Preparation & Practical Examinations and Remedial Mid Test (RMT)	21.08.2023 – 26.08.2023	1 Week
8.	Submission of II Mid Term Examination Marks to the Autonomous Section on or before	26.08.2023	
9.	II Semester End Examinations	28.08.2023 – 09.09.2023	2 Weeks
<b>Commencement of Class Work for II B.Tech – I Semester - 11.09.2023</b>			

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PRINCIPAL

Copy to all the Heads of the Depts. and AO.

CONTROLLER OF EXAMINATIONS

DIRECTOR  
(Academic Audit)PRINCIPAL  
Sri Indu College of Engineering & Technology



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**

**Department of Computer Science and Engineering**

**Justification of CO's Vs PO's/ PSO's mapping**

**(Sub code: R22CSE1113)- Programming for problem solving (C113)**

**Course Outcome Program Outcomes  
Mapping using - Competencies-Performance  
Indicators.**

Subject Code / Name :

PO/ CO	Competency		Performance Indicators		C	C	C	CO	C	C
					O	O	O	O	O	O
					1	2	3	4	5	6
<p><b>PO1: Engineering Knowledge: apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.</b></p>	1.1	Demonstrate competence in mathematical modeling	1.1.1	Apply mathematical techniques such as linear algebra, differential calculus, differential equations and integral calculus to solve problems		y	y	y		
			1.1.2	Apply concepts of Complex Variable, probability, linear algebra, vector integration and transformation techniques to model and solve electronics engineering problems.	y	y	y	y	y	y
	1.2	Demonstrate competence in basic sciences	1.2.1	Apply laws of natural science to an engineering problem	y	y		y	y	y
	1.3	Demonstrate competence in engineering fundamentals	1.3.1	Apply engineering fundamentals	y	y	y	y	y	y
	1.4	Demonstrate competence in specialized engineering knowledge to the program	1.4.1	Apply electronics engineering concepts to solve engineering problems	Y	y	y		y	y
					Average	2	3	2	2	2

				Average Final	2	3	2	2	2	2
<p><b>PO2: Problem Analysis: identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.</b></p>	2.1	Demonstrate an ability to identify and formulate complex engineering problem	2.1.1	Articulate problem statements and identify objectives.	y			Y		
			2.1.2	Identify engineering systems, variables, and parameters to solve a problem	y			Y		
			2.1.3	Identify the mathematical, engineering and other relevant knowledge that applies to a given problem	y		Y	Y		
	2.2	Demonstrate an ability to formulate a solution plan and methodology for an engineering problem	2.2.1	Reframe complex problems into interconnected sub-problems.	y	y	y	Y	y	y
			2.2.2	Identify, assemble and evaluate information and resources	y	y	Y	Y	y	y
			2.2.3	Identify existing solution/methods for solving the problem, including forming justified approximations and assumptions	y	y	y	Y	y	y
			2.2.4	Compare and contrast alternative solution/methods to select the best methods.	y	y	y	Y	y	y
	2.3	Demonstrate an ability to formulate and interpret a model	2.3.1	Combine scientific principles and engineering concepts to formulate model/s (mathematical or otherwise) of a system or process that is appropriate in terms of applicability and required accuracy.	y	y	y	Y	y	y
			2.3.2	Identify assumptions (mathematical and physical) necessary to allow modeling of a system at the level of accuracy required.	y	y	y	Y	y	y

	2.4	Demonstrate an ability to execute a solution process and analyze results	2.4.1	Apply engineering mathematics to implement solution	y	y	y		y	y	
			2.4.2	Analyze and interpret the results using contemporary tools.	y	y			y	y	
			2.4.3	Identify the limitations of the solution and sources/causes of error.	y	y			y		
2.4.4			Arrive at conclusions with respect to the objectives.						y		
Average					2	2	1	2	2	2	
Average Final					2	2	1	2	2	2	
<b>PO3: Design &amp; 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.</b>	3.1	Demonstrate an ability to define a complex/open-ended problem in engineering terms	3.1.1	Recognize that need analysis is key to good problem definition							
			3.1.2	Able to identify and document system requirements from stakeholders.	Y				y	y	
			3.1.3	Ability to review state of the art literature to synthesize requirements.	Y		y	y	y	y	y
			3.1.4	Extract engineering requirements from relevant engineering codes and standards defined by ISO/IEC/IEEE.	Y	y	y	y	y	y	y
			3.1.5	Explore and synthesize engineering requirements considering health, safety, risks, environment, cultural and societal issues	Y	y	y	y	y	y	y
			3.1.6	Determine design, objectives, functional requirements and arrive at specifications	Y	y	y	y	y	y	y
	3.2	Demonstrate an ability to generate a diverse set of alternative design	3.2.1	Ability to explore design alternatives.	Y	y	y	y	y	y	
			3.2.2	Build models/prototypes to develop diverse set of design solutions	Y	y	y	y	y	y	
			3.2.3	Identify suitable criteria for evaluation of alternate design solutions		y		y	y	y	

		solutions								
	3.3	Demonstrate an ability to select optimal design scheme for further development	3.3.1	Ability to perform systematic evaluation of the degree to which several design concepts meet the criteria.		y	y	y	y	
			3.3.2	Consult with domain experts and stakeholders to select candidate engineering design solution for further development		y	y	y		y
	3.4	Demonstrate an ability to advance an engineering design to defined end state	3.4.1	Refine a conceptual design into a detailed design within the existing constraints (of the resources)		y	y			
			3.4.2	Generate information through appropriate tests to improve or revise design						
						1	2	1	2	2
					1	2	1	2	2	2

<b>PO4: Conduct Investigation of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.</b>	4.1	Demonstrate an ability to conduct investigations of technical issues consistent with their level of knowledge and understanding	4.1.1	Define a problem for purpose of investigation, its scope and importance						
			4.1.2	Choose appropriate methods, algorithms, hardware/software tools and techniques of experiment design, system calibration, data acquisition, analysis and presentation						
			4.1.3	Apply appropriate hardware/software tools to conduct the experiment				y	y	
			4.1.4	Establish a relationship between measured data and underlying physical principles				y	y	y
	4.2	Demonstrate an ability to design	4.2.1	Design and develop experimental approach, specify appropriate equipment and procedures	y			y	y	y

		experiments to solve open ended problems	4.2.2	Understand the importance of statistical design of experiments and choose an appropriate experimental design plan based on the study objectives	y	y		y	y	y
	4.3	Demonstrate an ability to analyze data and reach a valid conclusion	4.3.1	Use appropriate procedures, tools and techniques to collect and analyze data	y	y	y		y	y
			4.3.2	Critically analyze data for trends and correlations, stating possible errors and limitations	y	y	y		y	y
			4.3.3	Represent data (in tabular and/or graphical forms) so as to facilitate analysis and explanation of the data, and drawing of conclusions	y	y	y		y	
			4.3.4	Synthesize information and knowledge about the problem from the raw data to reach appropriate conclusions			y			y
					1	1	1	1	2	1
					1	1	1	1	2	1

<b>PO5: Modern Tools Usage: create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.</b>	5.1	Demonstrate an ability to identify/create modern engineering tools, techniques and resources	5.1.1	Identify modern engineering tools techniques and resources for engineering activities	y	y	y	y	y	y
			5.1.2	Create/adapt/modify/extend tools and techniques to solve engineering problems	y	y	y	y	y	y
	5.2	Demonstrate an ability to select and apply discipline specific	5.2.1	Identify the strengths and limitations of tools for (i) acquiring information (ii) modeling and simulating (iii) monitoring system performance, and (iv) creating engineering designs	y	y	y	y	y	y

		tools, techniques and resources	5.2.2	Demonstrate proficiency in using discipline specific tools		y	y	y	y	y
	5.3	Demonstrate an ability to evaluate the suitability and limitations of tools used to solve an engineering problem	5.3.1	Discuss limitations and validate tools, techniques and resources	y	y	y	y	y	y
			5.3.2	Verify the credibility of results from tool use with reference to the accuracy and limitations, and the assumptions inherent in their use.	y	y	y	y	y	y
					2	3	3	3	3	3
					2	3	3	3	3	3

<b>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.</b>	6.1	Demonstrate an ability to describe engineering roles in a broader context, e.g. pertaining to the environment, health, safety, legal and public welfare	6.1.1	Identify and describe various engineering roles; particularly as pertains to protection of the public and public interest at global, regional and local level.						
	6.2	Demonstrate an understanding of professional engineering	6.2.1	Interpret legislation, regulations, codes, and standards relevant to professional engineering practice and explain its contribution to the protection of the public.						

	g regulation s, legislation and standards												
								0	0	0	0	0	0
								-	-	-	-	-	-

<b>PO7: Environment &amp; Sustainability: understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</b>	7.1	Demonstrate an understanding of the impact of engineering and industrial practices on social, environmental and in economic contexts	7.1 .1	Identify risks/impacts in the life-cycle of an engineering product or activity									
			7.1 .2	Understand the relationship between the technical, socioeconomic and environmental dimensions of sustainability									
	7.2	Demonstrate an ability to apply principles of sustainable design and development	7.2 .1	Describe management techniques for sustainable development									
			7.2 .2	Apply principles of preventive engineering and sustainable development to an engineering activity or product relevant to the discipline									
								0	0	0	0	0	0
								-	-	-	-	-	-

<b>PO8: Ethics: apply ethical principles and commit to professional ethics and</b>	8.1	Demonstrate an ability to recognize ethical	8.1 .1	Identify situations of unethical professional conduct and propose ethical alternatives							
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<b>responsibilities and norms of engineering practice.</b>		dilemmas								
	8.2	Demonstrate an ability to apply the code of ethics	8.2 .1	Identify tenets of code of ethics given by the professional bodies like IEEE.						
			8.2 .2	Examine and apply moral & ethical principles to known case studies						
					0	0	0	0	0	0
					-	-	-	-	-	-

<b>PO9: Individual &amp; Team work: function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.</b>	9.1	Demonstrate an ability to form a team and define a role for each member	9.1 .1	Recognize a variety of working and learning preferences; appreciate the value of diversity on a team						
			9.1 .2	Implement the norms of practice (e.g. rules, roles, charters, agendas etc.) of effective team work, to accomplish a goal						
	9.2	Demonstrate effective individual and team operations --- communication, problem solving, conflict resolution and leadership skills	9.2 .1	Demonstrate effective communication, problem solving, conflict resolution and leadership skills						
			9.2 .2	Treat other team members respectfully						
			9.2 .3	Listen to other members						
			9.2 .4	Maintain composure in difficult situations						
	9.3	Demonstrate success in a team based project	9.3 .1	Present results as a team, with smooth integration of contributions from all individual efforts						
					0	0	0	0	0	0

		-	-	-	-	-	-
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<b>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, and give and receive clear instructions.</b>	10.1	Demonstrate an ability to comprehend technical literature and document project work	10.1.1	Read, understand and interpret technical and non-technical information	y			y			
		10.1.3	Create flow in a document or presentation- a logical progression of ideas so that the main point is clear	y		y					
	10.2	Demonstrate competence in listening, speaking and presentation	10.2.1	Listen to and comprehend information, instructions, and viewpoints of others							
			10.2.2	Deliver effective oral presentations to technical and nontechnical audiences			y	y			
	10.3	Demonstrate the ability to integrate different modes of communication	10.3.1	Create engineering-standard figures, reports and drawings to complement writing and presentations							
			10.3.2	Use a variety of media effectively to convey a message in a document or a presentation							
						1	0	1	1	0	0
						1	-	1	1	-	-

<b>PO11: Project management &amp; Finance: demonstrate knowledge and understanding of the engineering and management principles</b>	11.1	Demonstrate an ability to evaluate the economic and financial performance	11.1.1	Describe various economic and financial costs/benefits of an engineering activity						
			11.1.2	Analyze different forms of financial statements to evaluate the financial status of an engineering project			y			

<b>and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</b>		ce of an engineering activity									
	11.2	Demonstrate an ability to compare and contrast the costs/benefits of alternate proposals for an engineering activity	11.2.1	Analyze and select the most appropriate proposal based on economic and financial considerations		y					
	11.3	Demonstrate an ability to plan/manage an engineering activity within time and budget constraints	11.3.1	Identify the tasks required to complete an engineering activity and the resources required to complete the tasks		y					
			11.3.2	Use project management tools to schedule an engineering project so it is completed on time and on budget			y				
						0	1	1	0	0	0
						-	1	1	-	-	-

<b>PO12: Life-long Learning: recognize the need for, and have the preparation and ability to engage in independent and life-</b>	12.1	Demonstrate an ability to identify gaps in knowledge and a strategy to close these gaps	12.1.1	Describe the rationale for requirement for continuing professional development						
			12.1.2	Identify deficiencies or gaps in knowledge and demonstrate an ability to source information to close this gap						

<b>long learning in the broadest context of technological change.</b>	12.2	Demonstrate an ability to identify changing trends in engineering knowledge and practice	12.2.1	Identify historic points of technological advance in engineering that required practitioners to seek education in order to stay current							
		12.2.2	Recognize the need and be able to clearly explain why it is vitally important to keep current regarding new developments in your field.								
	12.3	Demonstrate an ability to identify and access sources for new information	12.3.1	Source and comprehend technical literature and other credible sources of information							
			12.3.2	Analyze sourced technical and popular information for feasibility, viability, sustainability etc.							
						0	0	0	0	0	0
						-	-	-	-	-	-

Faculty



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**  
**Department of Humanities & Sciences**

**I B.Tech I Semester CSE-A - TIME TABLE 2022-23**

ROOM NO: F-201

w.e.f: 10-11-2022

Time/Day	9:40am-10:30am I	10:30-11:20am II	11:20-12:10pm III	L U N C H	12:40-01:45pm IV	1:45-2:50pm V	2:50-4:00pm VI
MON	PPS	← BEE LAB →			EC	M&C	COUNS
TUE	M&C	PPS	BEE		← CAEG →		
WED	← CAEG →				PPS	EC	M&C
THU	← EC LAB →				M&C	BEE	EC
FRI	PPS	M&C	EC		← Elements of CSE →		
SAT	BEE	PPS	EC		← PPS LAB →		

COURSE CODE	COURSE NAME	FACULTY NAME
M&C	Matrices And Calculus	Ch Ravali
EC	Engineering Chemistry	A Shiva Kumar
PPS	Programming for Problem Solving	D Mounika
BEE	Basic Electrical Engineering	G Sharada
CAEG	Computer Aided Engineering Graphics	B Vineeth
Elements of CSE	Elements of Computer Science & Engineering	Dr T Charan Singh
EC LAB	Engineering Chemistry Laboratory	A Shiva Kumar
PPS LAB	Programming for Problem Solving Laboratory	D Mounika
BEE LAB	Basic Electrical Engineering Laboratory	G Sharada
COUNS	Counseling	
<b>CLASS COORDINATOR: A Shiva Kumar</b>		<b>TIME TABLE INCHARGE: B Vineeth</b>

Head of the Department

Principal





**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**  
**Department of Humanities & Sciences**

**I.B.Tech I Semester CSE-B - TIME TABLE 2022-23**

ROOM NO: F-202

w.e.f: 10-11-2022

Time/Day	9:40am-10:30am I	10:30-11:20am II	11:20-12:10pm III	L U N C H	12:40-01:45pm IV	1:45-2:50pm V	2:50-4:00pm VI
MON	M&C	EC	BEE		PPS	← BEE LAB →	
TUE	← EC LAB →				PPS	BEE	EC
WED	← Elements of CSE →				EC	PPS	M&C
THU	← PPS LAB →				PPS	COUNS	M&C
FRI	← CAEG →				EC	M&C	PPS
SAT	BEE	EC	M&C		← CAEG →		

COURSE CODE	COURSE NAME	FACULTY NAME
M&C	Matrices And Calculus	Ch Ravali
EC	Engineering Chemistry	A Shiva Kumar
PPS	Programming for Problem Solving	K.S. Archana
BEE	Basic Electrical Engineering	N Ashlesha
CAEG	Computer Aided Engineering Graphics	B Vineeth
Elements of CSE	Elements of Computer Science & Engineering	Dr T Charan Singh
EC LAB	Engineering Chemistry Laboratory	A Shiva Kumar
PPS LAB	Programming for Problem Solving Laboratory	K.S. Archana
BEE LAB	Basic Electrical Engineering Laboratory	N Ashlesha
COUNS	Counseling	
<b>CLASS COORDINATOR: A Shiva Kumar</b>		<b>TIME TABLE INCHARGE: B Vineeth</b>

Head of the Department

Principal



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**  
**Department of Humanities & Sciences**

**I.B.Tech I Semester CSE-C - TIME TABLE 2022-23**

ROOM NO: F-203

w.e.f: 10-11-2022

Time/Day	9:40am-10:30am I	10:30-11:20am II	11:20-12:10pm III	L U N C H	12:40-01:45pm IV	1:45-2:50pm V	2:50-4:00pm VI
MON	PPS	EC	M&C		← EC LAB →		
TUE	EC	M&C	PPS		BEE ← BEE LAB →		
WED	← PPS LAB →				M&C	BEE	PPS
THU	← CAEG →				BEE	COUNS	EC
FRI	M&C	EC	PPS		← CAEG →		
SAT	← Elements of CSE →				PPS	EC	M&C

COURSE CODE	COURSE NAME	FACULTY NAME
M&C	Matrices And Calculus	Ch Ravali
EC	Engineering Chemistry	U Sahithya Reddy
PPS	Programming for Problem Solving	Lavanya
BEE	Basic Electrical Engineering	G Sharada
CAEG	Computer Aided Engineering Graphics	K Vijaya Kumar
Elements of CSE	Elements of Computer Science & Engineering	Dr T Charan Singh
EC LAB	Engineering Chemistry Laboratory	U Sahithya Reddy
PPS LAB	Programming for Problem Solving Laboratory	Lavanya
BEE LAB	Basic Electrical Engineering Laboratory	G Sharada
COUNS	Counseling	
<b>CLASS COORDINATOR: K Vijaya Kumar</b>		<b>TIME TABLE INCHARGE: U Sahithya</b>

Head of the Department

Principal



**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**  
**Department of Humanities & Sciences**

**I B.Tech I Semester CSE-D - TIME TABLE 2022-23**

ROOM NO: F-204

w.e.f: 10-11-2022

Time/Day	9:40am-10:30am I	10:30-11:20am II	11:20-12:10pm III	L U N C H	12:40-01:45pm IV	1:45-2:50pm V	2:50-4:00pm VI	
MON	←	PPS LAB	→			COUNS	PPS	M&C
TUE	←	CAEG	→			EC	M&C	PPS
WED	←	EC LAB	→			BEE	PPS	EC
THU	M&C	BEE	EC			←	CAEG	→
FRI	EC	PPS	M&C			BEE	←	BEE LAB →
SAT	M&C	EC	PPS			←	Elements of CSE	→

COURSE CODE	COURSE NAME	FACULTY NAME
M&C	Matrices And Calculus	Ch Ravali
EC	Engineering Chemistry	U Sahithya Reddy
PPS	Programming for Problem Solving	K.S. Archana
BEE	Basic Electrical Engineering	N Ashlesha
CAEG	Computer Aided Engineering Graphics	K Vijaya Kumar
Elements of CSE	Elements of Computer Science & Engineering	Dr T Charan Singh
EC LAB	Engineering Chemistry Laboratory	U Sahithya Reddy
PPS LAB	Programming for Problem Solving Laboratory	K.S. Archana
BEE LAB	Basic Electrical Engineering Laboratory	N Ashlesha
COUNS	Counseling	
<b>CLASS COORDINATOR: K Vijaya Kumar</b>		<b>TIME TABLE INCHARGE: U Sahithya</b>

Head of the Department

Principal



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

**INDIVIDUAL TIME TABLE**

BRANCH : CSE -A

TIME/ DAY	9:40am to 10:30am I	10:30 am to 11:20am II	11:20am to 12:10pm III	12:10pm to 12:40pm	12:40pm to 1:45pm IV	1:45pm to 2:50pm V	2:50pm to 4:00pm VI	
MON	PPS			L U N C H				
TUE		PPS						
WED			PPS			PPS		
THUR								
FRI								
SAT		PPS				PPS LAB		

Faculty(D.MOUNIKA)

**INDIVIDUAL TIME TABLE**

BRANCH : CSE -B

TIME/ DAY	9:40am to 10:30am I	10:30 am to 11:20am II	11:20am to 12:10pm III	12:10pm to 12:40pm	12:40pm to 1:45pm IV	1:45pm to 2:50pm V	2:50pm to 4:00pm VI	
MON				L U N C H	PPS			
TUE					PPS			
WED						PPS		
THUR	PPS LAB					PPS		
FRI								PPS
SAT								

Faculty(K.S.ARCHANA)



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

**INDIVIDUAL TIME TABLE**

BRANCH : CSE -C

TIME/ DAY	9:40am to 10:30am I	10:30 am to 11:20am II	11:20am to 12:10pm III	12:10pm to 12:40pm	12:40pm to 1:45pm IV	1:45pm to 2:50pm V	2:50pm to 4:00pm VI
MON	PPS			L U N C H			
TUE			PPS				
WED	PPS LAB						PPS
THUR							
FRI			PPS				
SAT						PPS	

FACULTY(G.ANITHA)

**INDIVIDUAL TIME TABLE**

BRANCH : CSE -D

TIME/ DAY	9:40am to 10:30am I	10:30 am to 11:20am II	11:20am to 12:10pm III	12:10pm to 12:40pm	12:40pm to 1:45pm IV	1:45pm to 2:50pm V	2:50pm to 4:00pm VI
MON	PPS LAB			L U N C H		PPS	
TUE							PPS
WED						PPS	
THUR							
FRI		PPS					
SAT			PPS				

FACULTY(K.S.ARCHANA)

**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**



**Department of Computer Science and Engineering**

**STUDENTS NAME LIST**

<b>Sl.No</b>	<b>Register no.</b>	<b>Name</b>
1	22D41A0501	ADUDODLA KAVYA
2	22D41A0502	ALUKA JASHWANTH
3	22D41A0503	ANANTHALA AKSHITHA
4	22D41A0504	ANANTHULA YOUGENDHAR
5	22D41A0505	ANUGU TEJA SRI REDDY
6	22D41A0506	APURI AKHILA
7	22D41A0507	ARUKONDA MADHUKUMAR
8	22D41A0508	B ASHRITHA REDDY
9	22D41A0509	B RAKESH NAIK
10	22D41A0510	BADDELA KAVYA
11	22D41A0511	BADDIPADIGE DAYAKAR
12	22D41A0512	BADHAVATH KALYAN
13	22D41A0513	BAIKANI SATYA VARA PRASAD
14	22D41A0514	BAIRU NAVADEEP
15	22D41A0515	BAKARAM PRANEETH REDDY

16	22D41A0516	BALE BHUVANA TERISHA
17	22D41A0517	BANDARU GOPI
18	22D41A0518	BANDARUPALLI RISHITHA
19	22D41A0519	BASWA ANUDEEP GOUD
20	22D41A0520	BATHULA POOJITHA
21	22D41A0521	BATHULA SRIKANTH
22	22D41A0522	BATTULA SAATWIK REDDY
23	22D41A0523	BEERAM SATHISH REDDY
24	22D41A0524	BIKUMANDLA ANUSHNA
25	22D41A0525	BISHAL NAG
26	22D41A0526	BODAPATI MADHURI PRIYA
27	22D41A0527	BODDU HARI PRASAD
28	22D41A0528	BOKKA AKHIL REDDY
29	22D41A0529	BOKKA SANTHOSHI REDDY
30	22D41A0530	BOKKA SASHI VARDHAN REDDY
31	22D41A0531	BOLLA NAGARAJU
32	22D41A0532	BOMMU SINDHUJA
33	22D41A0533	BONAGIRI AJAY VINCENT
34	22D41A0534	BONDHI DEEVAN
35	22D41A0535	BOYA GAGAN
36	22D41A0536	BOYAPALLY JEEVAN
37	22D41A0537	BUDIGAPAKA MANOJ KUMAR

38	22D41A0538	BURRI SIRI VENNALA
39	22D41A0539	BYROJU KAVYA SREE
40	22D41A0540	CHAGANTIPATI SAI SRI BHAVITHA
41	22D41A0541	CHANDAN SAIVIGNESH
42	22D41A0542	CHEKKA SAI RAM
43	22D41A0543	CHENAGONI DURGA BHAVANI
44	22D41A0544	CHENNOJU SUSHMA SWARAJ
45	22D41A0545	CHILUKA DIVYASREE
46	22D41A0546	CHINNAPALLY BALA KRISHNA
47	22D41A0547	CHINTAM PURNA CHANDRA REDDY
48	22D41A0548	CHINTHAKINDI AKSHITHA
49	22D41A0549	CHITHALLOORI LAXMI NARASIMHA
50	22D41A0550	CICETTY VAISHNAVI
51	22D41A0551	DANAGOLLA SHIVA SHANKAR
52	22D41A0552	DANDE MITHIN
53	22D41A0553	DANDU SHASHANK REDDY
54	22D41A0554	DAPPILI HARSHITH REDDY
55	22D41A0555	DASIKA SRI VENU GOPALA KRISHNA MURTHY
56	22D41A0556	DESHAPAGA CHANDU
57	22D41A0557	DEVUDU SAI SIRISHA

58	22D41A0558	DEVULAPALLY DHANUNJAY GOUD
59	22D41A0559	DHANAVATH VARSHA
60	22D41A0560	DHARAVATH AKHILA
61	22D41A0561	DHONURI MADHUMATHI
62	22D41A0562	DOMMETI NAVYA
63	22D41A0563	DONDA RISHIKA
64	22D41A0564	EARLAPALLY SOHANA
65	22D41A0565	ELAKANTI NARESH
66	22D41A0566	ERROLLA AKHILESH
67	22D41A0567	ERROLLA RUCHITHA
68	22D41A0568	ERUKALA VAISHNAVI GOUD
69	22D41A0569	ETIKALA VISHNUVARDHAN
70	22D41A0570	G NARENDHAR
71	22D41A0571	GADDAM AKSHARA
72	22D41A0572	GADDAM GOUTHAM REDDY
73	22D41A0573	GADE BHARGAVI
74	22D41A0574	GALI NIHARIKA
75	22D41A0575	GANTELA PRAVEEN
76	22D41A0576	GOPANABOYINA LOKESH
78	22D41A0577	GOSKONDA SUJITH REDDY
79	22D41A0578	GOVINDU RAVI TEJA
80	22D41A0579	GUDUR AKSHAYA REDDY

81	22D41A0580	GUNJI DIVYA
82	22D41A0581	GUNTI HANIRUDHVIKA
83	22D41A0582	GUNTUKA MAHESH CHANDRA
84	22D41A0583	GURJIGALLA MUNI PRASAD
85	22D41A0584	GURRAM AMANI
86	22D41A0585	GUTTI VIGNESHWAR REDDY
87	22D41A0586	J VAMSHI
88	22D41A0587	JAMMA AJAY KUMAR
89	22D41A0588	JANAPATI SRILATHA
90	22D41A0589	JANJIRALA JANEELA
91	22D41A0590	JARPULA SRAVANI
92	22D41A0591	JATTA KARTHIK
93	22D41A0592	JIDUGU VENU MADHAV
94	22D41A0593	K AKHILA
95	22D41A0594	KALAMOLU ARJUN KUMAR
96	22D41A0595	KAMARAJUGADDA RAMCHARAN
97	22D41A0596	KANDHI SAI TEJA
98	22D41A0597	KARRE SIDDARTHA
99	22D41A0598	KASULA ABHISHEK REDDY
100	22D41A0599	KATRE PRATHAMESH
101	22D41A05A0	KESAPRAGADA HARSHITHA
102	22D41A05A1	KETHAVATH KIRAN

103	22D41A05A2	KODURU NANDINI
A	22D41A05A3	KOILAKONDA SOWMYA
105	22D41A05A4	KOKA HINDU
106	22D41A05A5	KOLAN AKHIL REDDY
107	22D41A05A6	KOMMU SHIVA KRISHNA
108	22D41A05A7	KOMMU TARUN
109	22D41A05A8	KONDA MANASA
110	22D41A05A9	KONDAGUDURU UPENDAR
111	22D41A05B0	KONDAKINDHI SAIKIRAN REDDY
112	22D41A05B1	KONDAMADUGU RAHUL CHARY
113	22D41A05B2	KONDRU DEEKSHITHA
114	22D41A05B3	KORIVI SIMHADRI
115	22D41A05B4	KUMBHAM PRASHANTH GOUD
116	22D41A05B5	KUNCHALA HARI KRISHNA
117	22D41A05B6	KURAKULA PUJITHA
118	22D41A05B7	LAKAMTHOTI THIRUMALA TEJA
119	22D41A05B8	LATTUPALLY AKSHITHA REDDY
120	22D41A05B9	LAVUDYA NITHIN NAYAK
121	22D41A05C0	LINGAMALLA NAGESHWARI
122	22D41A05C1	LINGARAPU DIVYA
123	22D41A05C2	M CHAYA PRASANNA

124	22D41A05C3	M SAMITH
125	22D41A05C4	MADIGELA RAHUL
126	22D41A05C5	MAHEEN BEGUM
127	22D41A05C6	MAINAMPATI BHAVANI
128	22D41A05C7	MALDODDI SAI DIVYA
129	22D41A05C8	MALE VIVEKANANDA REDDY
130	22D41A05C9	MANNEM VAMSHI
131	22D41A05D0	MARADANA SAI DHANUSH
132	22D41A05D1	MARAGANI CHAITHAN
133	22D41A05D2	MARAGANI VYSHNAVI
134	22D41A05D3	MARLA JHANSI
135	22D41A05D4	MARUTHI DIVYA
136	22D41A05D5	MEDARA VASU
137	22D41A05D6	MIRYALA RAVITEJA
138	22D41A05D7	MOHAMMAD JUNAID
139	22D41A05D8	MOHAMMAD KHALID
140	22D41A05D9	MOHAMMED ABDUL HUSSAIN
141	22D41A05E0	MOHAMMED FAIZAAN TOUQEER
142	22D41A05E1	MOLKAPURI SRAVAN KUMAR
143	22D41A05E2	MORISHETTI MANIRUPA
144	22D41A05E3	MUDAVATH MAHENDER
145	22D41A05E4	MUDDAM DEEKSHA GOUD
146	22D41A05E5	MUDDAM MAHESH

147	22D41A05E6	MUKKAMULA GANESH
148	22D41A05E7	MUKKAMULA SHIVA
149	22D41A05E8	MUKTHIPUDI CHINNARI
150	22D41A05E9	MUSKE SUDHARSHAN
151	22D41A05F0	NAKKA SAI DEEKSHITH
152	22D41A05F1	NAKKA SHALEM RAJU
153	22D41A05F2	NALABOLU ABHINAV REDDY
154	22D41A05F3	NALLA SAI KIRAN
155	22D41A05F4	NALLAVOLU JASHWANTH REDDY
156	22D41A05F5	NANDINI TERATI
157	22D41A05F6	NARALA KAVYA
158	22D41A05F7	NARAMDAS CHAITANYA
159	22D41A05F8	NAREDDY POOJITHA
160	22D41A05F9	NARSINGOJU DEEPTHI
161	22D41A05G0	NAVARU SAI LEKHANA
162	22D41A05G1	NAVVA LOKESH KUMAR
163	22D41A05G2	NELA PRANAY
164	22D41A05G3	NELAPUDI GREESHMA
165	22D41A05G4	NELLIKANTI LINGASWAMY
166	22D41A05G5	NENAVATH RAJENDAR
167	22D41A05G6	NENTA JAGAN
168	22D41A05G7	P NANDHINI
169	22D41A05G8	PABBATHI VAMSHI
170	22D41A05G9	PALLAM LISA VERONICA

171	22D41A05H0	PALTHI SANDESH
172	22D41A05H1	PALVAI NAVEEN KUMAR
173	22D41A05H2	PANDALA MANASA
174	22D41A05H3	PANGA SRINADH
175	22D41A05H4	PANGA VANI
176	22D41A05H5	PANTHAGANI SIDDHARTHA
177	22D41A05H6	PANUGANTI ASHOK
178	22D41A05H7	PARA GOPI
179	22D41A05H8	PATI NIVEDHITHA REDDY
180	22D41A05H9	PEDDA SAI ANNA DIVYA
181	22D41A05J0	PEDDIREDDY AMITHA REDDY
182	22D41A05J1	PERALA LAL SATHYA
183	22D41A05J2	PERALA SWETHA
184	22D41A05J3	PILLY ASHWITHA
185	22D41A05J4	POCHAMREDDY LAXMI NARASIMHA REDDY
186	22D41A05J5	POLAMPALLI NAVEEN
187	22D41A05J6	POLE PRAVEEN KUMAR
188	22D41A05J7	PONNALA VASUDEVA RAO
189	22D41A05J8	POOLA SHIVA SHANKAR
190	22D41A05J9	POTHURAJU BHAVYASRI
191	22D41A05K0	PUNYAMURTHY MEGHANA
192	22D41A05K1	R DURGA BHAVANI
193	22D41A05K2	RACHARLA

		SHREEHARSHITHA
194	22D41A05K3	RAMAVATH ANIL KUMAR
195	22D41A05K4	RAPOLU VISHNU VARDHAN
196	22D41A05K5	RASAMALLA ARAVIND KUMAR
197	22D41A05K6	REDDICHARLA AKHIL VARMA
198	22D41A05K7	REDDY REDDY ANKITHA
199	22D41A05K8	REHANA KHATOON
200	22D41A05K9	REKHA PAVAN
201	22D41A05L0	REKHA VENKATESH
202	22D41A05L1	RESHMA BEGUM
203	22D41A05L2	SADALA VARSHITHA REDDY
204	22D41A05L3	SAI VARSHITH VIRAT
205	22D41A05L4	SAMA NIHARIKA GOUD
206	22D41A05L5	SANA BEGUM
207	22D41A05L6	SANGANI SAI TEJA REDDY
208	22D41A05L7	SARIGUNDLA PARUSHARAMULU
209	22D41A05L8	SEELA ANAND
210	22D41A05L9	SHAIK ANWAR PASHA
211	22D41A05M0	SHAIK ASIF
212	22D41A05M1	SHAIK DILAWAR
213	22D41A05M2	SHAIK KHALEEL
214	22D41A05M3	SHAIK SHAHEEN

215	22D41A05M4	SHEELA ARCHANA
216	22D41A05M5	SHEELAM NAGESH
217	22D41A05M6	SHEGURU CHANDRAKANTH REDDY
218	22D41A05M7	SHERI JASWITHA
219	22D41A05M8	SHIGIRI SAI CHANDANA
220	22D41A05M9	SRIPATHI CHARAN REDDY
221	22D41A05N0	SUDHAVENI RISHIK
222	22D41A05N1	SULTHAN SUSHMA
223	22D41A05N2	SUNKARI LOKESH VARMA
224	22D41A05N3	SURVI HARINI
225	22D41A05N4	SURYA PREMVARDHAN GOUD
226	22D41A05N5	TANNIRU ANUSHA
227	22D41A05N6	TELUGU INDU
228	22D41A05N7	THAISIN
229	22D41A05N8	THANGELLA RUPA
230	22D41A05N9	THENGELLAPALLI ABHINAV
231	22D41A05P0	THOKALA NAVATEJA
232	22D41A05P1	THUMMALAPALLY NEHA
233	22D41A05P2	UDUTHA GAYATHRI
234	22D41A05P3	UPPARA VIJAY KUMAR
235	22D41A05P4	V VASU KUMAR
236	22D41A05P5	VADTHYA MOUNIKA
237	22D41A05P6	VAISHNAVI THIGALA

238	22D41A05P7	VAKITI ANVESH
239	22D41A05P8	VANGALA ADITHYA REDDY
240	22D41A05P9	VEMUNURI PRATHYUSHA
241	22D41A05Q0	VUPPULA VINAY KUMAR REDDY
242	22D41A05Q1	YADAVELLI RAGHU CHARAN GOUD
243	22D41A05Q2	YALLANKI VENKAT SHIVA GOUD
244	22D41A05Q3	YANALA CHARAN REDDY
245	22D41A05Q4	YATA BHAVYA
246	22D41A05Q5	YEDLA SPOORTHY
247	22D41A05Q6	YELGASKANPET SAI KOUSHIK
248	22D41A05Q7	YOGANTI MANIKANTH GOUD
249	22D41A05Q8	KEESARI BHAVANI REDDY
250	22D41A05Q9	KUDUMULA SHASHANK YADAV
251	22D41A05R0	SHAIK AADIL HUSSAIN
252	22D41A05R1	R PRANAV YADAV
253	22D41A05R2	CHILUKA RAGHAVENDRA
254	22D41A05R3	BALAM LAKSHMAN
255	22D41A05R4	BUSSU RAMYA REDDY
256	22D41A05R5	VATTIPALLY SURYA TEJA REDDY
257	22D41A05R6	MUDAVATH SRI INDU
258		



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

LESSON PLAN

Faculty Name: D.MOUNIKA/K.S.ARCHANA/G.ANITHA

AY/Semester: 2022-2023( I )

Subject: Programming for problem solving (C1113)

Unit/ Item No.	Topic (s)	Book Reference	Page (s)		Teaching Methodology	Proposed No. of Periods	Actual Date of Handled	CO/RBT
			From	To				
<b>UNIT-I</b>								
<b>I</b>	<b>Introduction to programming</b>					<b>20</b>		
1.1	compilers, compiling and execution of a program	T2	1.9	1.10	Black board	1		CO1/L1
1.2	Representation of Algorithm with examples	T2	1.25	1.25	Black board	1		CO1/L4
1.3	Algorithms for i) Finding roots of Quadratic Equations ii) Finding minimum and maximum numbers of given set iii) Finding if a number is prime number.	T2	1.25	1.26	Black board, Power Point Presentation	1		CO1/L4
1.4	Flowchart/Pseudo code with examples	T2	1.26	1.36	Power Point Presentation	1		CO1/L1
1.5	Program design and Structured Programming	T1	102	109	Power Point Presentation	1		CO3/L1
1.6	Introduction to C Programming Language	T2	2.3	2.6	Power Point Presentation	1		CO3/L1
1.7	Variables (with datatypes and Space requirements)	T2	2.13	2.21	Nptel video lecture	1		CO3/L1
1.8	Syntax and Logical Errors in Compilation, Object and Executable Code	T1	49	55	Black board	1		CO3/L4
1.9	Operators	T1	131	135	Black board	2		CO3/L2
1.10	Expressions and precedence, Expression evaluation,	T2	3.12	3.14	Black board	1		CO3/L5
1.11	Storage classes (auto, extern, static and register), type conversion	T2	2.44	2.53	Power point presentation	1		CO3/L2
1.12	The main method and command line arguments Bitwise operations	T2	3.37	3.39	Black board	1		CO3/L3
1.13	Conditional Branching and Loops	T1	130	175	Black board	1		CO3/L2



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(Regulation :R22)  
Department of Computer Science &Technology Engineering

**(Regulation :R22)**  
Prepared on :01/11/2022 Rev1:  
31/1/2023

<b>Sub. Code &amp; Title</b>	<b>(R22CSE1113) PROGRAMMING FOR PROBLEM SOLVING</b>		
<b>Academic Year: 2022-23</b>	<b>Year/Sem. I/I</b>	<b>I-I CSE</b>	
<b>Faculty Name &amp; Designation</b>	<b>D MOUNIKA \K S ARCHANA\G.ANITHA</b>		

1.14	Writing and evaluation of conditionals and consequent branching with if, if-else, switch-case	T1	130	176	Black board	1		CO3/L2
1.15	Go to,Iteration with for, while, do-while loops	T1	176	177	Black board	1		CO3/L2
1.16	Write a c program i) to read 10 numbers from keyboard and find their sum and average ii)to display multiplication of table of agiven integer	T1	164	168	Black board	1		CO3/L6
1.17	Simple input and output with scanf and printf, formatted I/O	T2	2.22	2.33	power point presentation	1		CO3,CO5 /L2
1.18	Introduction to stdin, stdout and stderr. Command line arguments	T2	13.31	13.32	Black board	1		CO3,CO5/ L2
1.19	Revision				Black board	1		

**Review**

**Signature of the HOD/Coordinator**

Unit / Item No.	Topic(s)	Book Reference	Page (s)	Teaching Methodology	Proposed No.of Periods	Actual Date of Handled	CO/RBT
-----------------	----------	----------------	----------	----------------------	------------------------	------------------------	--------

**UNIT-II**

**Arrays ,strings, structures and pointers**

**12**

2.1	Arrays: one and two dimensional arrays,	T2	7.1	7.24	Power point presentation	1		CO5/L1
2.2	creating, accessing and manipulating elements of arrays	T2	7.27	7.32	Black board	1		CO5/L3
2.3	Strings: Introduction to strings, handling strings as array of characters	T2	8.2	8.7	Black board	1		CO5/L1
2.4	Basic string functions available in C (strlen, strcat, strcpy, strstr etc.), arrays of strings	T2	8.21	8.39	Black board	1		CO5/L1
2.5	Structures: Defining structures, initializing structures	T2	9.7	9.21	Black board	1		CO5/L1
2.6	Unions, array of structures	T2	9.22	9.24	Black board	1		CO5/L1



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**D MOUNIKA \K S ARCHANA\G.ANITHA**

2.7	Defining pointers, Pointers to Arrays and Structures	T2	10.1	10.14	Black board	1		CO5/L1
2.8	Use of Pointers in self-referential structures,	T2	10.1	10.14	Black board	1		CO5/L2
2.9	Usage of self referential structures in linked list (no implementation)	T1	371	372	Power point presentation	1		CO5/L2
2.10	Enumeration data type	T2	9.2	9.6	Black board	1		CO3/L1
2.11	Write a c program i) to read and print an employees details using structure ii) to append one string to end of the string iii) to calculate the difference between two time periods using union	T2	9.25	9.26	Black board	1		CO5/L6
2.12	Revision	T1	176	183	Black board	1		CO4/L1
<b>Review</b>			<b>Signature of the HOD/Coordinator</b>					

**UNIT- III**

<b>III</b>	<b>Preprocessor and file handlings in C</b>					<b>9</b>		
3.1	Preprocessor: commonly used preprocessor commands like include, define, undef, if, ifdef, ifndef.	T2	12.1	12.16	Power point presentation	2		CO5/L2
3.2	Files :Text and Binary files	T2	13.1	13.3	Black board	1		CO3,CO5/L1
3.3	Creating and Reading and writing text and binary files,	T1	13.4	13.10	Black board	1		CO3,CO5/L1
3.4	Appending data to existing files	T1	13.11	13.20	Black board	1		CO3,CO5/L1
3.5	Writing structures using binary files	T1	14.9	14.22	Black board	1		CO3,CO5/L2
3.6	Reading structures using binary files	T1	14.1	14.8	Black board	1		CO3,CO5/L2
3.7	Random access using fseek, ftell and rewind functions.	T1	14.9	14.20	Black board	1		CO3,CO5/L2
3.8	Revision				Black board	1		
<b>Review</b>			<b>Signature of the HOD/Coordinator</b>					



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<b>Academic Year: 2022-23</b>	<b>Year/Sem. I/I</b>	<b>I-I CSE</b>	
<b>Faculty Name &amp; Designation</b>	<b>D MOUNIKA \K S ARCHANA\G.ANITHA</b>		

**UNIT-IV**

<b>IV</b>	<b>Functions and dynamic memory allocation</b>					<b>13</b>			
4.1	Functions: Designing structured programs	T2	15.1	15.2	Black board	1		CO4/L1	
4.2	Declaring a function, Signature of a function,	T1	15.3	15.12	Black board	1		CO4/L1	
4.3	Parameters and return type of a function	T2	15.3	15.12	Power point presentation	1		CO4/L2	
4.4	Passing parameters to functions, call by value,	T2	15.13	15.28	Power point presentation	1		CO4/L1	
4.5	Passing arrays to functions	T1	15.39	15.45	Black board	1		CO4,CO5/L3	
4.6	passing pointers to functions	T1	15.46	15.48	Black board	1		CO4,CO5/L3	
4.7	Idea of call by reference	T2	15.46	15.48	Black board	1		CO4,CO5/L1	
4.8	Some C standard functions and libraries	T2	15.29	15.38	Power Point Presentation	1		CO4/L1	
4.9	Recursion: Simple programs	T2	15.49	15.55	Black board	1		CO4/L2	
4.10	Finding Factorial, Fibonacci series etc, Limitations of Recursive functions	T1	15.49	15.55	Black board	1		CO4/L3	
4.11	Dynamic memory allocation: Allocating and freeing memory	T1	11.7	11.9	Black board	1		CO4/L3	
4.12	Allocating memory for arrays of different data types	T1	11.9	11.12	Black board	1		CO4/L3	
4.13	Revision				Black board	1			
	<b>Review</b>	<b>Signature of the HOD/Coordinator</b>							

**UNIT-V**

<b>V</b>	<b>Searching and Sorting</b>					<b>09</b>		
5.1	Basic searching in an array of elements (linear and binary search techniques)	T2	16.16	16.26	Black board	3		CO6/L2
5.2	Basic algorithms to sort array of elements (Bubble, Insertion and Selection sort algorithms),	T2	16.1	16.15	Black board	3		CO6/L2



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**D MOUNIKA \K S ARCHANA\G.ANITHA**

5.3	Basic concept of order of complexity through the example programs	T2	16.1	16.26	Black board	2		CO6/L2
5.4	Revision				Black board	1		
	<b>Review</b>		<b>Signature of the HOD/Coordinator</b>					



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Faculty Name & Designation	D MOUNIKA \K S ARCHANA\G.ANITHA		

## LIST OF TEXT BOOKS AND REFERENCES

### TEXT BOOKS:

1. Byron Gottfried, Schaum's Outline of Programming with C, McGraw-Hill
2. B.A. Forouzan and R.F. Gilberg C Programming and Data Structures, Cengage Learning, (3<sup>rd</sup> Edition)

### REFERENCE BOOKS:

1. Brian W. Kernighan and Dennis M. Ritchie, The C Programming Language, Prentice Hall of India
2. R.G. Dromey, How to solve it by Computer, Pearson (16<sup>th</sup> Impression)
3. Programming in C, Stephen G. Kochan, Fourth Edition, Pearson Education.
4. Herbert Schildt, C: The Complete Reference, Mc Graw Hill, 4<sup>th</sup> Edition
5. E. Balaguruswamy, Programming in ANSI C, Tata McGraw – Hill

### Weblinks

- <https://nptel.ac.in/courses/106/105/106105171/>
- [https://onlinecourses.nptel.ac.in/noc21\\_cs01/preview](https://onlinecourses.nptel.ac.in/noc21_cs01/preview)
- <https://nptel.ac.in/courses/106/104/106104074/>
- <https://www.coursera.org/specializations/c-programming> <https://www.edx.org/course/c-programming-getting-started>



Department of Computer Science and Engineering

**CONTENT BEYOND THE SYLLABUS**

S.No	Topics	Proposed Actions	Date	Resource Person/Mode	POs	PSOs
1	Introduction to components of Computer System	To get Knowledge		D.Mounika	PO1	PSO1
2	Introduction to Data Structures	To get knowledge		K.S. Archana	PO2&PO3	-
3	strev ,strlwr,strupr,strcmp functions	To get knowledge		G.Anitha	PO3	-

**ASSIGNMENT**

S.No	Assignment Questions	Course Outcome	Books To be Referred	Date of Announcement	Date Of Submission
1	List the steps and draw flowchart to print biggest of three numbers.	CO1	T2	20-12-2022	27-6-2022
2	Explain branching statements with example.	CO3	T2	20-12-2022	27-6-2022
3	Explain string handling functions with an example.	CO5	T2	20-12-2022	27-12-2022
4	Write a C program for addition of a matrix.	CO5	T2	20-12-2022	27-12-2022
5	Explain the purpose and usage of preprocessor directives.	CO3	T2	20-12-2022	27-12-2022
6	Discuss about following with an example a)malloc            b)calloc c)realloc           d)free	CO4	T2	22-2-2023	27-2-2023
7	Explain Parameters and return types of function.	CO4	T2	22-2-2023	27-2-2023
8	Explain about recursive function with an example.	CO4	T2	22-2-2023	27-2-2023
9	Explain Binary search technique with example.	CO6	T2	22-2-2023	27-2-2023
10	Choose any one of the sorting technique and sort the following numbers 34,5,67,8,435,2,78,45,12,15,24	CO6	T2	22-2-2023	27-2-2023



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**SELF STUDY TOPICS**

<b>S.No.</b>	<b>Topics</b>	<b>Books &amp; Journals</b>	<b>Course Outcomes</b>
1	Implement copy one string to another string, concatenation of two strings, comparison of two string, reverse of two strings, length of a string with out using predefined function s.	Let Us C 8th Edition,BPB publications,yashvanth kanetkar	CO3,CO5
2	Pattern programs	The Complete Reference C Fourth edition McGraw – Hill,Herbert Schildt	CO3

<b>Prepared by</b>	<b>Recommended and Approved by</b>
( Signature & Name) <b>D MOUNIKA \K S ARCHANA\ ANITHA</b>	<b>HOD</b>

# **LECTURE NOTES**

**Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist**

**Department of Computer Science and Engineering**

**LIST OF POWER POINT PRESENTATIONS**  
**FOR PROGRAMMING FOR PROBLEM SOLVING**

<b>S.No.</b>	<b>Topic Name</b>	<b>No. of Slides/ Duration</b>
1	'C' Data types	15
2	Presentation on strings	15
3	Presentation on storage classes	15
4	Arrays	15

BR-20

 SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

D4

**I B.Tech - I Semester - I Mid Term Examination, February – 2022**

**(R20CSE1101) PROGRAMMING for PROBLEM SOLVING**

(For CIVIL, MECH., and ECE)

**Duration: 90 Mins**

**Dt: 11-02-2022, Day-2 (FN)**

**Max Marks: 25M**

**Section – A**

Answer **All** the questions

**Marks: 5Qx1M = 5M**

\* (L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, L6-Creating.)

**\*Blooms**      **Course**

**Taxonomy**  
**Levels**      **Outcomes**

1. Define Algorithm and write its characteristics.

(L1)      CO1

2. List types of arrays.

(L1)      CO5

3. Define a String?

(L1)      CO5

4. Define a function. (L1) CO4
5. Define recursion? (L1) CO4

**Section – B**

**Answer any FOUR questions**

**Marks: 4Qx5M = 20M**

6. Construct a Flowchart to find the roots of a quadratic equation. (L3) CO1
7. Explain different operators available in C. (L2) CO3
8. Develop a C program for an electricity power distribution company charges its domestic consumers as follows: (L6) CO2
- | Consumption Units | Rate of Charge (per unit) |
|-------------------|---------------------------|
| 0-200             | Rs. 5                     |
| 201-300           | Rs. 7                     |
| 301-400           | Rs. 8                     |
| Above-400         | Rs. 10                    |
9. Explain call by value and call by reference. Develop a C program to swap two values by using both techniques. (L3) CO4
10. Define a structure. How to initialize a structure? Explain with an example. (L1) CO5
11. Construct a program to find factorial of a given number. (L3) CO3

**CO & BT Mapping for I MID TERM EXAMINATION**

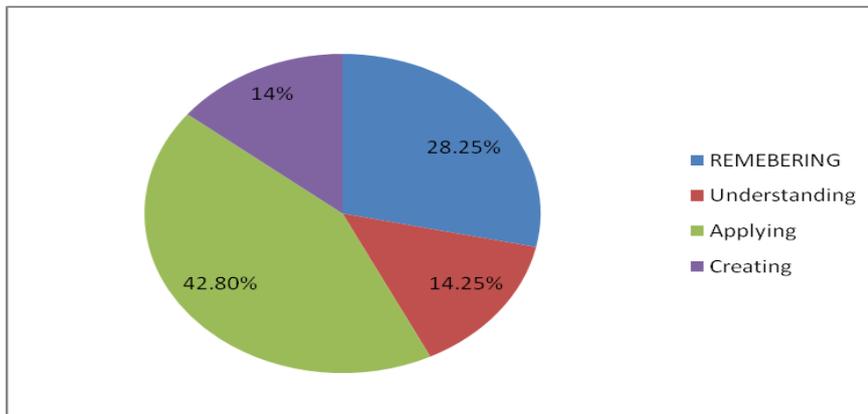
Question No.	Marks	Percentage (%)	Course outcome mapping	Bloom's Taxonomy level mapping
--------------	-------	----------------	------------------------	--------------------------------

1	1	2.8	C113.1	Remembering
2	1	2.8	C113.5	Remembering
3	1	2.8	C113.5	Remembering
4	1	2.8	C113.4	Remembering
5	1	2.8	C113.4	Remembering
6	5	14.2	C113.1	Applying
7	5	14.2	C113.3	Understanding
8	5	14.2	C113.2	Creating
9	5	14.2	C113.4	Applying
10	5	14.2	C113.5	Remembering
11	5	14.2	C113.3	Applying

**Remembering: 10M (28.5%), Understanding: 5M (14.25%); Applying: 15M (42.8%),Creating:5M(14.25%)**

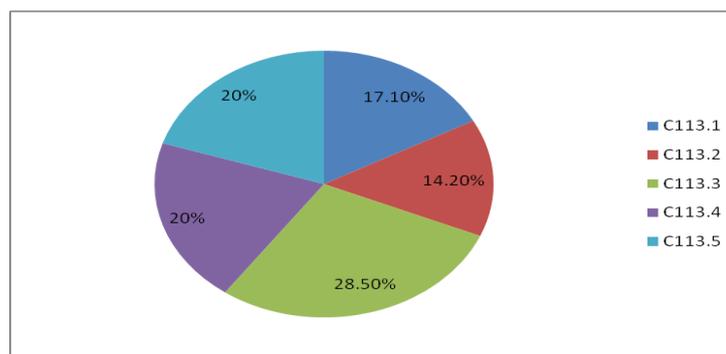
### CO & BT Bloom's Taxonomy level mapping

CO	MARKS
REMEBERING	28.25%
Understanding	14.25%
Applying	42.80%
Creating	14%



### UNIT WISE MARKS GIVEN IN MID-I EXAM

CO	MARKS	PERCENTAGE
C113.1	6	17.1
C113.2	5	14.2
C113.3	10	28.5
C113.4	7	20.0
C113.5	7	20.0



BR-20



SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

D4

**I B.Tech - I Semester - II Mid Term Examination, March – 2022**

**(R20CSE1101) PROGRAMMING for PROBLEM SOLVING**

(For CIVIL, MECH., and ECE)

**Duration: 90 Mins**

**Dt: 31-03-2022, Day-2 (FN)**

**Max Marks: 25M**

**Section – A**

Answer **All** the questions

**Marks: 5Qx1M = 5M**

\* (L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, and L6-Creating.)

**\*Blooms**      **Course**  
**Taxonomy**      **Outcomes**  
**Levels**

- |  |      |     |
|--|------|-----|
| 1. Analyze the usage of pointers in self-referential structures.   | (L4) | CO5 |
| 2. Discuss about initialization of pointer variables.  | (L2) | CO5 |
| 3. Distinguish between the following modes:<br>a) w and w+, b) r and r+, c) rb and rb+, and d) a and a+. | (L2) | CO5 |
| 4. What is the use of fseek()? Explain its syntax.   | (L1) | CO5 |
| 5. Give the merits and demerits of linear and binary search.   | (L1) | CO6 |

**Section – B**

Answer any **FOUR** questions

**Marks: 4Qx5M = 20M**

- |  |      |     |
|--|------|-----|
| 6. Classify the following: a) Pointers to arrays and b) Pointers to structure. | (L4) | CO5 |
| 7. How to allocate memory for arrays of different data types?                  | (L1) | CO5 |

- |   |      |     |
|---|------|-----|
| 8. Develop a C Program to combine contents of two files in a third file and display the data from third file.                                   | (L3) | CO5 |
| 9. Explain the purpose and usage of preprocessor directives.  | (L1) | CO4 |
| 10. Develop a C program on Bubble sort.   | (L3) | CO6 |
| 11. Estimate the complexity to search 34, 31, 78 by using linear search technique with given data 34, 5, 67, 8, 2, 78, 45, 12, 48, 36. Justify? | (L6) | CO6 |

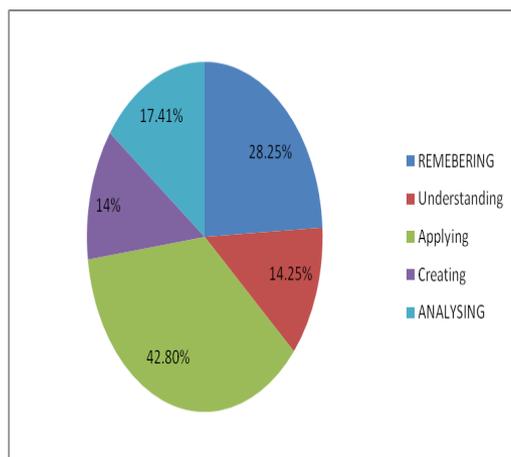
**CO & BT Mapping for II MID TERM EXAMINATION**

<b>Question No.</b>	<b>Marks</b>	<b>Percentage (%)</b>	<b>Course outcome mapping</b>	<b>Bloom's Taxonomy level mapping</b>
1	1	2.8	C113.5	Analyzing
2	1	2.8	C113.5	Understanding
3	1	2.8	C113.5	Understanding
4	1	2.8	C113.5	Remembering
5	1	2.8	C113.6	Remembering
6	5	14.2	C113.5	Analyzing
7	5	14.2	C113.5	Remembering
8	5	14.2	C113.5	Applying
9	5	14.2	C113.4	Remembering
10	5	14.2	C113.6	Applying
11	5	14.2	C113.6	Creating

Remembering: 12M (34.2%), Understanding: 2M (5.0%); Applying: 10M (28.5%),Analyzing:6M(17.14%),Creating:5M(14.25%)

**CO & BT Bloom’s Taxonomy level mapping**

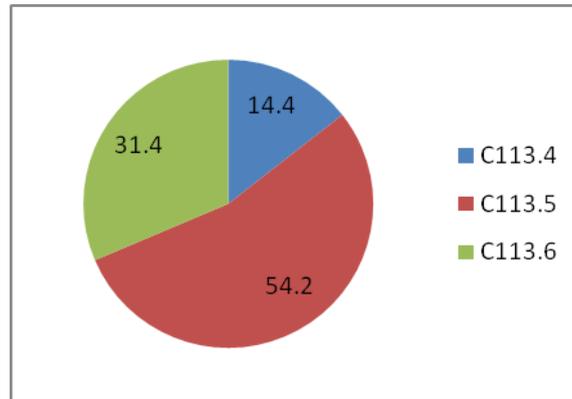
<b>CO</b>	<b>MARKS</b>
REMEBERING	28.25%
Understanding	14.25%
Applying	42.80%
Creating	14%
ANALYSING	17.41%



**UNIT WISE MARKS GIVEN IN MID-II EXAM**

<b>CO</b>	<b>MARKS</b>	<b>PERCENTAGE</b>
<b>C113.4</b>	<b>5</b>	<b>14.4</b>

<b>C113.5</b>	19	54.2
<b>C113.6</b>	11	31.4



**I B.Tech - I Semester - I Mid Term Examination, December – 2022**

**(R22CSE1113) PROGRAMMING for PROBLEM SOLVING**

**(For CSE, CS, AI&ML, AI&DS, DS, IoT, CSIT & IT)**

**Duration: 2 Hrs**

**Dt: 31-12-2022, Day-2 (FN)**

**Max Marks: 30**

**Part – A**

**Answer All: multiple choice questions.**

**Marks: 10Qx1/2M = 50**

**\* (L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, and L6-Creating.)**

**\*Blooms**

**Taxonomy  
Levels**

1. Output of the above program is. [ ]

III

```
Void main()
```

```
{
```

```
int c= --2;
```

```
Printf(“c=%d”,c);
```

```
}
```

A) 1    B) -2    C) 2    D) Error.

2. if a=8,b=3,c=-5 are integers then a\*b/c will give the value. [ ]

I

A) -4    B) 2.8    C) +2.8    D) +3.

3. a=10; b=++a then value of b will be. [ ]

II

A) 11    B) 10    C) 9    D) 12.

4. x+= is equal to. [ ]

II

A) x= x+1    B) x=1    C) x= x-1    D) x=x.

5. What is the output of the following code? [ ]

III

```
int main()
```

```

{
int a[]={1,2,3,4};

int b[4]={5,6,7,8};
printf(“%d %d”, a[0],b[0]);
}

```

- A) 1,5      B) 2,6      C) 0 ,0      D) Compiler error.
6. Array index starts from. [   ] I  
A) 0      B) 1      C) 10      D) 100.
7. Size of the array need not to be specified when. [   ] I  
A) Initialization is a part of definition      B) it is a declaration  
C) it is a formal parameter      D) all of these
8. Address stored in the pointer variable is of type. [   ] I  
A) Short int      B) unsigned int      C) int      D) double.
9. Processor Directive in C language starts with. [   ] I  
A) \$ symbol      B) @ symbol      C) & symbol      D) # symbol.
10. Which of the following file modes open a file in the write state for updating? [   ] I  
A) Ab      B) wb      C) rb      D) r+b.

**Answer All: fill in the blank questions.**

**Marks: 6Qx1/2M =**

11. -----is a pictorial representation of a program. I
12. Explicit type conversion is known as ----- I
13. To give 8 bits space while printing the result we use-----escape sequence character I
14. The output of the following code is ----- II  

```

void main()
{
int x = 0;
int *ptr = &x;
printf(“%d\n”, *ptr);
}

```

15. -----operator connects the structure name to its member name II
- 
16. #define ERRMSG printf("Some error."); III  
 int main()  
 { printf("JAR.");  
 ERRMSG;  
  
 return 0;  
 }  
 The output of the following code is-----

**Answer All: Match the following questions.**

**Marks: 2Qx1M =**

17. Identify and match the Escape sequence characters: I
- |       |                 |
|-------|-----------------|
| a) \t | i) Vertical tab |
| b) \v | ii) back space  |
| c) \a | iii) tab space  |
| d) \b | iv) bell        |
18. Match the following string handling functions: I
- |              |  |
|--------------|--|
| a) Strcmp()  | i) reverse a string                                    |
| b) Strrev()  | ii) copies one string to other at a specified location |
| c) Strncpy() | iii) length of a string                                |
| d) Strlen()  | iv) compares two strings                               |

**Part – B**

**Answer any FOUR questions.**

**Marks: 4Qx5M =**

19. Construct a Flowchart to find the roots of a quadratic equation. III
20. What is the purpose of switch? How does it differ from other statements? II
21. Develop a 'C' program for an electricity power distribution company charges its domestic consumers as follows: IV
- | Consumption Units | Rate of Charge (per unit) |
|-------------------|---------------------------|
| 0-200             | Rs. 5                     |
| 201-300           | Rs. 7                     |
| 301-400           | Rs. 8                     |
| Above 400         | Rs. 10                    |
22. Define a structure. How to initialize a structure? Explain with an example. I
23. Define a two dimensional array with its syntax and write a program to transpose a given matrix. I
24. Explain about file inclusion preprocessor directives. I

\*\*\*\*\*

**CO & BT Mapping for I MID TERM EXAMINATION**

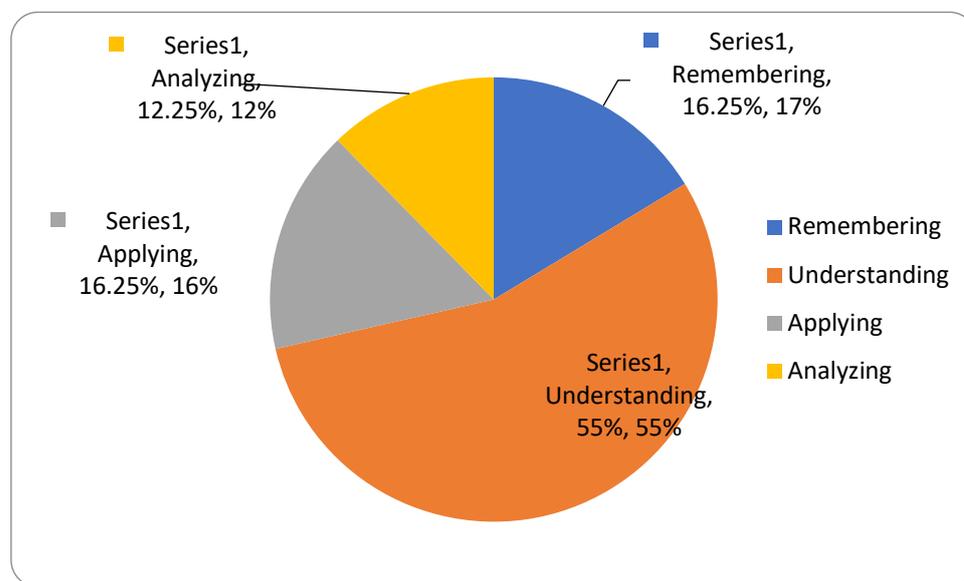
<b>Question No.</b>	<b>Marks</b>	<b>Percentage (%)</b>	<b>Course outcome mapping</b>	<b>Bloom's Taxonomy level mapping</b>
1	0.5	1.25	C113.3	Applying
2	0.5	1.25	C113.2	Remembering
3	0.5	1.25	C113.3	Understanding
4	0.5	1.25	C113.3	Understanding
5	0.5	1.25	C113.5	Applying

6	0.5	1.25	C113.5	Remembering
7	0.5	1.25	C113.5	Remembering
8	0.5	1.25	C113.5	Remembering
9	0.5	1.25	C113.4	Remembering
10	0.5	1.25	C113.4	Remembering
11	0.5	1.25	C113.4	Remembering
12	0.5	1.25	C113.3	Remembering
13	0.5	1.25	C113.3	Remembering
14	0.5	1.25	C113.5	Understanding
15	0.5	1.25	C113.5	Understanding
16	0.5	1.25	C113.4	Applying
17	1	2.5	C113.3	Remembering
18	1	2.5	C113.5	Remembering
19	5	11.1	C113.1	Applying
20	5	11.1	C113.3	Understanding
21	5	11.1	C113.3	Analyzing
22	5	11.1	C113.5	Understanding
23	5	11.1	C113.5	Understanding
24	5	11.1	C113.4	Understanding

**Remembering: 6.5M (16.25%), Understanding: 22M (55%); Applying: 6.5M (16.25%), Analyzing:5M(12.25%)**

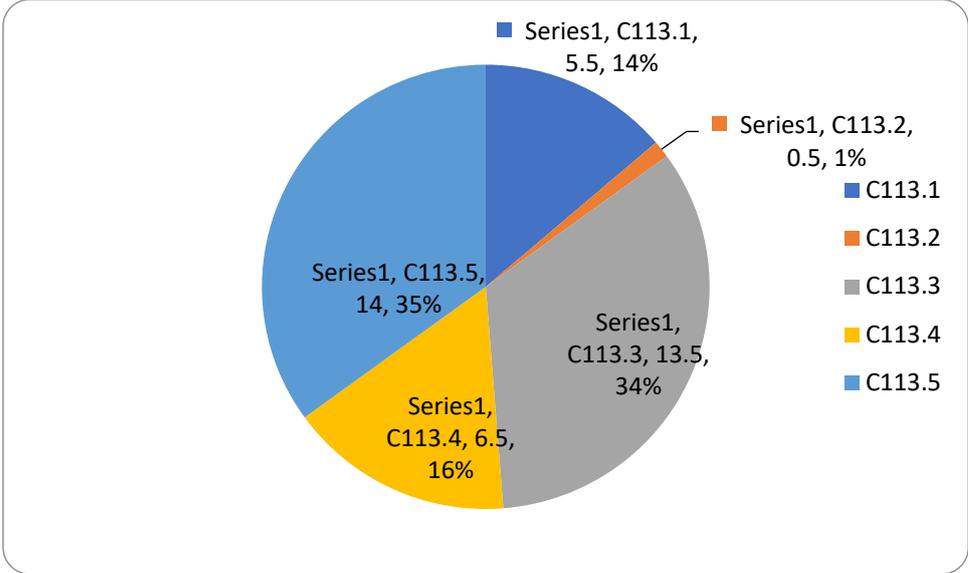
### CO & BT Bloom's Taxonomy level mapping

CO	MARKS
Remembering	16.25%
Understanding	55%
Applying	16.25%
Analyzing	12.25%



### UNIT WISE MARKS GIVEN IN MID-I EXAM

CO	MARKS	PERCENTAGE
C113.1	5.5	13.75
C113.2	0.5	1.25
C113.3	13.5	33.75
C113.4	6.5	16.25
C113.5	14	35



BR-22  SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY D4

I B.Tech - I Semester - II Mid Term Examination, March – 2023

(R22CSE1113) PROGRAMMING for PROBLEM SOLVING

(For CSE, CS, AI&ML, AI&DS, DS, IoT, CSIT & IT)

Duration: 2 Hrs

Dt: 04-03-2023, Day-2 (FN)

Max Marks: 30

Part – A

Answer All: multiple choice questions.

Marks: 10Qx1/2M = 50

\* (L1-Remembering, L2-Understanding, L3-Applying, L4-Analyzing, L5-Evaluating, and L6-Creating.)

\*Blooms

Taxonomy  
Levels

1. The following code returns the value.

[ ] II

```
#include <stdio.h>

#define MAX 1000

int main()
{
    int MAX = 100;
    printf("%d ", MAX);
    return 0;
}
```

A) 100      B) 200      C) 300      D) 400.

2. Which function is used to position a file at the beginning?

[ ] I

A) ftell      B) fseek      C) freport      D) feof.

3. malloc() allocates memory from the heap and not from the stack. [ ] I  
 A) true B) false C) may be D) can't say.
4. To tell the compiler to store data at an address, use the. [ ] I  
 A) Address operator(&) B) Array operator([])  
 C) Dereference operator(#) D) Indirection operator(\*)
5. The keyword used to transfer control from a function back to the calling function is. [ ] I  
 A) switch B) goto C) break D) rerurn.
6. Choose a non Library C function below. [ ] I  
 A) printf() B) scanf() C) fprintf() D) printf4().
7. Which of the following is not an application of binary search? [ ] II  
 A) To find the lower/upper bound in an ordered sequence  
 B) Union of intervals  
 C) Debugging  
 D) To search in unordered list.
8. Which of the following is not a stable sorting algorithm? [ ] I  
 A) Insertion sort B) Selection sort C) Bubble sort D) Merge sort.
9. Which of the following is a disadvantage of linear search? [ ] I  
 A) Requires more space  
 B) Not easy to understand  
 C) Greater time complexities compared to other searching algorithms  
 D) Not easy to implement.
10. What is an external sorting algorithm? [ ] I  
 A) Algorithm that uses tape or disk during the sort  
 B) Algorithm that uses main memory during the sort  
 C) Algorithm that involves swapping  
 D) Algorithm that are considered 'in place'.

**Answer All: fill in the blank questions.**

**Marks: 6Qx1/2M =**

11. The \_\_\_\_\_ function is used to writing a file. I
12. The parameters in a function definition are called \_\_\_\_\_. I

13. A recursive function is faster than \_\_\_\_\_ loop. I
14. The output of this C code is \_\_\_\_\_ II
- ```
#include<stdio.h>
void main()
{
char *p = calloc(100, 1);
p = "welcome";
printf("%s\n", p);
}
```
15. \_\_\_\_\_ is an in-place sorting algorithms needs the minimum number of swaps I
16. The process through which data arranged according to their values is called \_\_\_\_\_ I

**Answer All: Match the following questions.**

**Marks: 2Qx1M =**

17. a) calloc ( )                      i) Frees previously allocated space. I  
b) free ( )                            ii) Modifies previously allocated space.  
c) malloc ( )                        iii) Allocates space for array.  
d) realloc ( )                        iv) Allocates requested size of space. Define a function .
18. a) searching                            i) linear search I  
b) sequential search                    ii) divide and conquer  
c) binary search                        iii) Process of finding a given value position in a list of values  
d) sorting                                iv) storage of data in ascending or descending order.

### Part – B

**Answer any FOUR questions.**

**Marks: 4Qx5M =**

19. Compare I/O operations on text file and binary file using structures. II
20. Write a C program to read an email address from user using scanf function. The code should accept only email addresses and store user name and domain name separately. (Eg if user supplies [xyz@gmail.com](mailto:xyz@gmail.com) username is xyz and domain name is gmail.com) IV
21. Explain about recursive function with an example. II
22. Explain about dynamic memory allocation. II
23. Develop a ‘C ‘ program to pass an array as an argument to function. III
24. Explain Binary search technique with example. II

\*\*\*\*\*

**CO & BT Mapping for II MID TERM EXAMINATION**

| <b>Question No.</b> | <b>Marks</b> | <b>Percentage (%)</b> | <b>Course outcome mapping</b> | <b>Bloom's Taxonomy level mapping</b> |
|---------------------|--------------|-----------------------|-------------------------------|---------------------------------------|
| 1                   | 0.5          | 1.25                  | C113.4                        | Understanding                         |

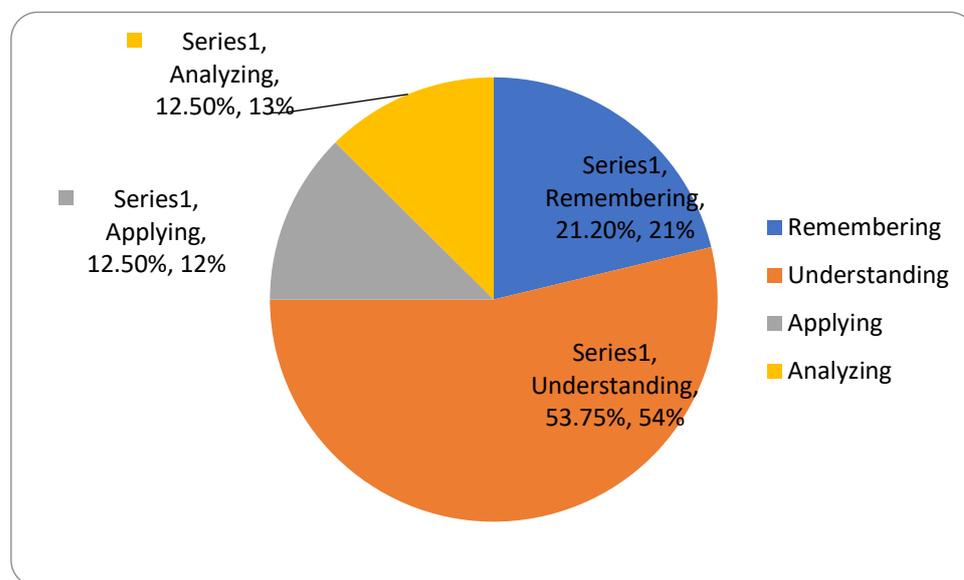
|    |     |      |        |               |
|----|-----|------|--------|---------------|
| 2  | 0.5 | 1.25 | C113.4 | Remembering   |
| 3  | 0.5 | 1.25 | C113.4 | Remembering   |
| 4  | 0.5 | 1.25 | C113.4 | Remembering   |
| 5  | 0.5 | 1.25 | C113.4 | Remembering   |
| 6  | 0.5 | 1.25 | C113.4 | Understanding |
| 7  | 0.5 | 1.25 | C113.6 | Remembering   |
| 8  | 0.5 | 1.25 | C113.6 | Remembering   |
| 9  | 0.5 | 1.25 | C113.6 | Remembering   |
| 10 | 0.5 | 1.25 | C113.6 | Remembering   |
| 11 | 0.5 | 1.25 | C113.4 | Remembering   |
| 12 | 0.5 | 1.25 | C113.4 | Remembering   |
| 13 | 0.5 | 1.25 | C113.4 | Remembering   |
| 14 | 0.5 | 1.25 | C113.4 | Understanding |
| 15 | 0.5 | 1.25 | C113.6 | Remembering   |
| 16 | 0.5 | 1.25 | C113.6 | Remembering   |
| 17 | 1   | 2.5  | C113.4 | Remembering   |
| 18 | 1   | 2.5  | C113.6 | Remembering   |
| 19 | 5   | 11.1 | C113.4 | Understanding |
| 20 | 5   | 11.1 | C113.4 | Analyzing     |
| 21 | 5   | 11.1 | C113.4 | Understanding |
| 22 | 5   | 11.1 | C113.5 | Understanding |

|    |   |      |        |               |
|----|---|------|--------|---------------|
| 23 | 5 | 11.1 | C113.6 | Applying      |
| 24 | 5 | 11.1 | C113.6 | Understanding |

Remembering: 8.5M (21.2%), Understanding: 21.5M (53.75%); Applying: 5M (12.5%), Analyzing:5M(12.5%)

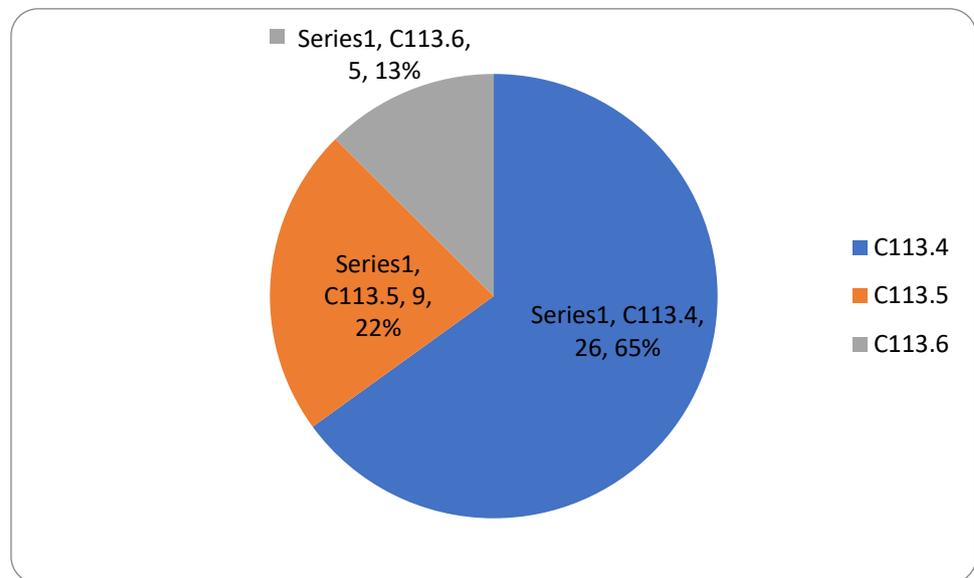
### CO & BT Bloom's Taxonomy level mapping

| CO            | MARKS  |
|---------------|--------|
| Remembering   | 21.2%  |
| Understanding | 53.75% |
| Applying      | 12.5%  |
| Analyzing     | 12.5%  |



**UNIT WISE MARKS GIVEN IN MID-II EXAM**

| <b>CO</b>     | <b>MARKS</b> | <b>PERCENTAGE</b> |
|---------------|--------------|-------------------|
| <b>C113.4</b> | 26           | 65                |
| <b>C113.5</b> | 9            | 22.5              |
| <b>C113.6</b> | 5            | 12.5              |







# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC/ New Delhi) - Recognized under 2(f) and 12(B) of UGC Act 1956

## I B.Tech. I Semester End Examination- Model Paper 2022-23

### PROGRAMMING FOR PROBLEM SOLVING

( R22CSE1113)

(Common to CSE(A,B,C,D),IOT,IT,CSIT,CS(A,B),AIDS(A,B),AIML(A,B),DS(A,B))

**Duration: 3 Hrs**

**Maximum Marks: 60**

**Blooms Taxonomy :** (I-Remembering / II-Understanding / III-Appling / IV-Analyzing / V-Evaluating / VI-Creating).

**Course Outcomes :** CO.

| PART – A                                                       |          | (10Q x 1M = 10Marks)                                                                                                      |       |                 |
|----------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------|-------|-----------------|
| Answer <i>All</i> Questions                                    |          |                                                                                                                           | Marks | Course Outcomes |
| <b>1</b>                                                       | <b>A</b> | Define Algorithm and write its characteristics.                                                                           | 1     | CO              |
|                                                                | <b>B</b> | Consider the following statement:<br>x=100;<br>y=200<br>a=(x>y) ?x++:y--;<br>execute the code and Evaluate the value of a | 1     | CO              |
|                                                                | <b>C</b> | Compare structure and union?                                                                                              | 1     | CO              |
|                                                                | <b>D</b> | Define preprocessor? Explain about preprocessor commands?                                                                 | 1     | CO              |
|                                                                | <b>E</b> | <i>What is the use of fseek()? Explain its syntax.</i>                                                                    | 1     | CO              |
|                                                                | <b>F</b> | Design a solution to implement user defined header file?                                                                  | 1     | CO              |
|                                                                | <b>G</b> | Distinguish between call by value and call by reference?                                                                  | 1     | CO              |
|                                                                | <b>H</b> | Analyze the Difference between malloc() and calloc()                                                                      | 1     | CO              |
|                                                                | <b>I</b> | Give the merits and demerits of linear and binary search.                                                                 | 1     | CO              |
|                                                                | <b>J</b> | Write the complexity of Bubble sort, insertion sort and selection sort.                                                   | 1     | CO              |
| PART – B                                                       |          | (5Q x 10M = 50Marks)                                                                                                      |       |                 |
| Answer <i>All</i> questions choosing <i>ONE</i> from each unit |          |                                                                                                                           |       |                 |

|   |                                                                                                                                                                                                                                                                         |    |    |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| 2 | <p style="text-align: center;"><b>UNIT-I</b></p> <p>A) Explain about creation and running of a program?<br/><b>(Or)</b></p> <p>B) Write an algorithm and develop a c program to print the reverse of a given number.</p>                                                | 10 | CO |
| 3 | <p style="text-align: center;"><b>UNIT-II</b></p> <p>A) Develop a c program that uses structures concept to perform addition of two complex numbers?<br/><b>(or)</b></p> <p>B) Classify the following<br/>a) Pointers to arrays      b) Pointers to structure</p>       | 10 | CO |
| 4 | <p style="text-align: center;"><b>UNIT-III</b></p> <p>A) Explain about formatted Input /Output with an example?<br/><b>(or)</b></p> <p>B) Explain the purpose and usage of preprocessor directives.</p>                                                                 | 10 | CO |
| 5 | <p style="text-align: center;"><b>UNIT-IV</b></p> <p>A) Construct a program to find factorial of a given number?<br/><b>(or)</b></p> <p>B) Develop a 'C' program to find GCD of given integers using functions?</p>                                                     | 10 | CO |
| 6 | <p style="text-align: center;"><b>UNIT-V</b></p> <p>A) Estimate the complexity to search 34,31,78 by using linear search technique with given data 34, 5, 67, 8, 2,78,45,12,48,36 .Justify?<br/><b>(or)</b></p> <p>B) Explain Linear search technique with example.</p> | 10 | CO |

**BR-18**

# **SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**

(An Autonomous Institution under UGC, New Delhi)(Recognized under 2(f) and 12(B) of UGC Act 1956)

**I B.Tech - I Semester –End Examinations (Regular/Suppl.) Dec/Jan-2019-20**

## **R18CSE1101 – PROGRAMMING FOR PROBLEM SOLVING**

**(Common to Civil,Mech & ECE)**

**Duration: 3 Hrs**

**30.12.2019**

**Max Marks: 70M**

---

### **Section – A**

**Answer All the following questions**

**Marks: 5Qx4M = 20M**

1. Draw the flowchart for finding roots of quadratic equation.
2. Write the difference between strcpy() & strcmp().
3. Define pointer & write its applications.
4. Explain about the file input &output functions with syntax.
5. Differentiate Linear Search and Binary Search.

### **Section – B**

Answer any FIVE questions by choosing at least one from each Unit

Marks: 5Qx10M = 50M

### UNIT – I

6) Explain the different types of operators in C language with examples.

(OR)

6. a) Write a C program to find the greatest of three numbers.
- b) Write a C program to perform Addition of two matrices.

### UNIT - II

7. a) Write a C program to print employee information using union.
- b) Define function? Explain the different categories of function.

(OR)

8. a) Explain the process of declaring string and Write a C program using i) gets ii) getchar.
- b) Explain the different categories of functions for example (function with no arguments & no return value).

### UNIT - III

9. a) Write a C program to illustrate the use of indirection operator '\*' to access the value pointed by program.
- b) Write a C recursive program for fibonacci series.

(OR)

10. a) Explain the dynamic memory allocation functions.
- b) What is a command line argument and give an example?

### UNIT-IV

11. a) Explain the various preprocessor commands in C.
- b) Write a C program to copy contents of one text file to another text file.

(OR)

12. Explain the different types of files & write a program to illustrate the error handling on files.

### UNIT-V

13. Explain bubble sort with the algorithm or with a C program.

(OR)

14. Explain the different searching and sorting techniques with example.

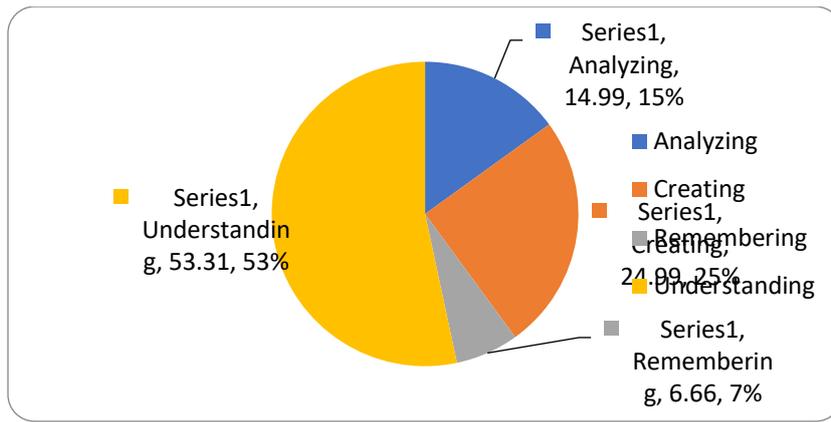
**CO & BT Mapping for I B.Tech –I Semester- End Examinations**

| <b>Q no.</b> | <b>Marks</b> | <b>Percentage (%)</b> | <b>Course outcome mapping</b> | <b>Bloom's Taxonomy level mapping</b> |
|--------------|--------------|-----------------------|-------------------------------|---------------------------------------|
| 1            | 4            | 3.33                  | C113.1                        | Remembering                           |
| 2            | 4            | 3.33                  | C113.2                        | Analyzing                             |
| 3            | 4            | 3.33                  | C113.3                        | Understanding                         |
| 4            | 4            | 3.33                  | C113.4                        | Remembering                           |
| 5            | 4            | 3.33                  | C113.5                        | Analyzing                             |
| 6            | 10           | 8.33                  | C113.1                        | Analyzing                             |

|    |    |      |        |               |
|----|----|------|--------|---------------|
| 7  | 10 | 8.33 | C113.1 | Understanding |
| 8  | 10 | 8.33 | C113.2 | Understanding |
| 9  | 10 | 8.33 | C113.2 | Understanding |
| 10 | 10 | 8.33 | C113.3 | Creating      |
| 11 | 10 | 8.33 | C113.3 | Understanding |
| 12 | 10 | 8.33 | C113.4 | Creating      |
| 13 | 10 | 8.33 | C113.4 | Understanding |
| 14 | 10 | 8.33 | C113.5 | Understanding |
| 15 | 10 | 8.33 | C113.5 | Creating      |

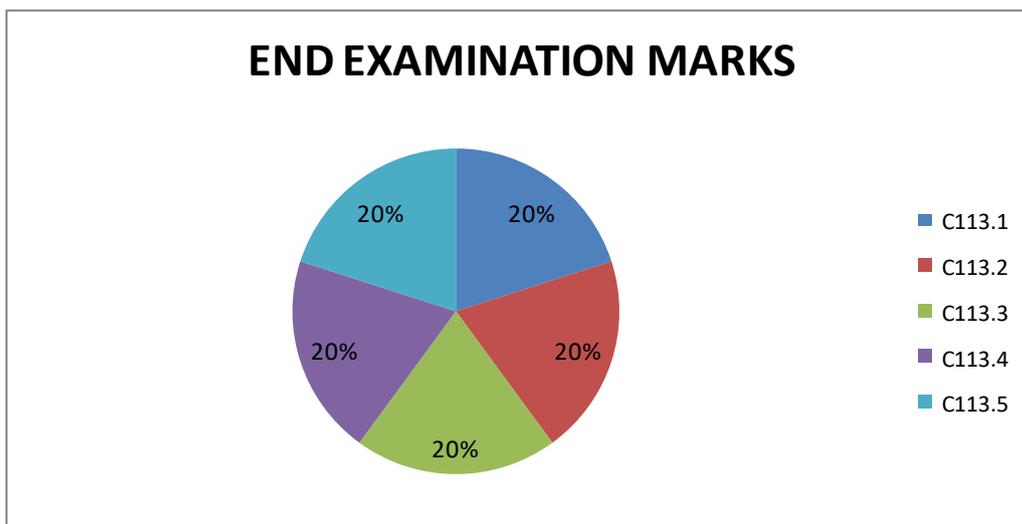
**CO & BT Bloom's Taxonomy level mapping**

| <b>CO</b>     | <b>MARKS</b> |
|---------------|--------------|
| Remembering   | 6.66%        |
| Understanding | 53.31%       |
| Analyzing     | 14.99%       |
| Create        | 24.99%       |



**UNIT WISE MARKS GIVEN IN END EXAM**

| CO     | MARKS | PERCENTAGE |
|--------|-------|------------|
| C113.1 | 24    | 20%        |
| C113.2 | 24    | 20%        |
| C113.3 | 24    | 20%        |
| C113.4 | 24    | 20%        |
| C113.5 | 24    | 20%        |





BR-22

Write Your Ht.No.

QC1136



## SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi) - Recognized under 2(f) and 12(B) of UGC Act 1956

**IB.Tech.ISemester(REGULAR)End Examinations, March – 2023.**

**(R22CSE1113) PROGRAMMING FOR PROBLEM SOLVING**

**23/03/2023 (For CSE, IT, AIML,AIDS, CS, DS, CSIT andIoT) Day- 3(FN)**

**Duration: 3 Hrs**

**Maximum Marks: 60M**

**Blooms Taxonomy : (I-Remembering, II-Understanding, III-Applying, IV-Analyzing, V-Evaluating and VI-Creating)**

**Course Outcomes : CO**

### **PART – A**

**Answer ALLthe following questions.(10Qx1M=10M)**

1. a) Explain time complexity. Obtain the step count of the following code using tabular method: I CO1

```
void add(int a[][MAX_SIZE],int b[][MAX_SIZE],int c[][MAX_SIZE],
```

```
int rows, int cols)
```

```
{
```

```
    Inti,j;
```

```
    for(i=0;i<rows;i++)
```

```
    {
```

```
        for(j=0;j<cols;j++)
```

```
        {
```

C[i][j]=a[i][j]+b[i][j];

}

}

}

b) Define Pseudo code. III CO4

c) I CO1

Why nested structures? Give an example.

d) What are the array applications? II CO5

e) Distinguish between text files and binary files. II CO5

f) Analyze ftell function. IV CO4

g) How many parameters should a function have? I CO1

h) What do you mean by freeing memory? II CO1

i) Define the space complexity of selection sort. III CO4

j) Write which sorting is best? Why? III CO6

## **PART – B**

***Answer FIVE questions choosing at least one from each unit.(5Qx10M=50M)***

### **UNIT-I**

2. What are the storage classes brief each? Write a switch statement1 that prints for 1 to 10 and 15-20 else print statement. I CO1

(OR)

How to write a decision making statements with if, If else, If else if, prove it? VI CO2

**P.T.O.**

### **UNIT-II**

3. What are the self referential structures? Write a program to multiply two Matrixes. II CO1

(OR)

Develop a c program that uses pointers to pointers and pointers to functions. IV CO5

### **UNIT-III**

4. Explain the formatted i/p and o/p functions with an example. II CO4

(OR)

Classify the following: a)Random access using fseek and b) Rewind functions. IV CO5

### **UNIT-IV**

5. Discuss the concept of structures and functions with a suitable example. II CO1

(OR)

Construct a program to find factorial of given number using recursive function. II CO3

### **UNIT-V**

6. Distinguish linear and binary search with an example. I CO3

(OR)

Estimate the complexity to sort array of elements. VI CO6

\*\*\*\*\*

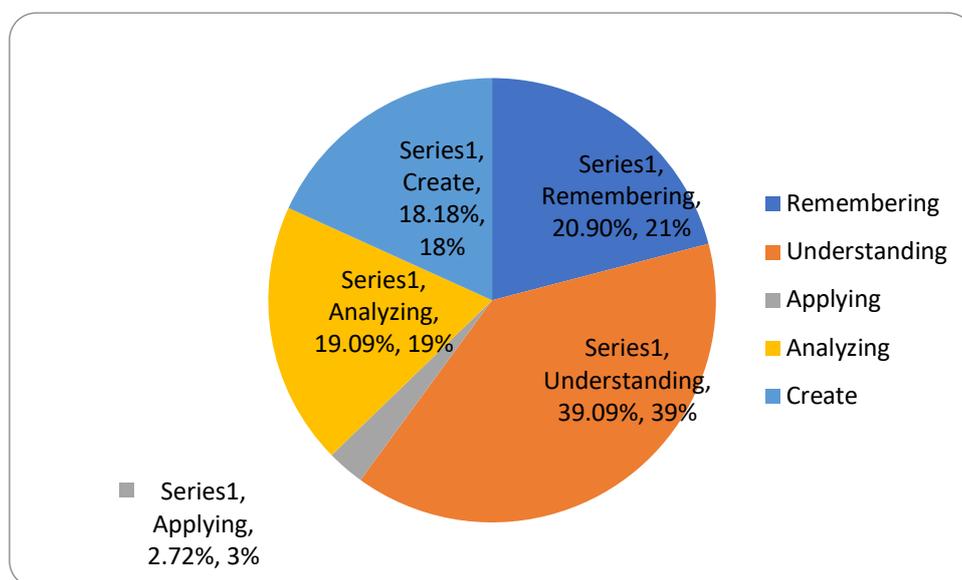
**CO & BT Mapping for I B.Tech –I Semester- End Examinations**

| <b>Q no.</b> | <b>Marks</b> | <b>Percentage (%)</b> | <b>Course outcome mapping</b> | <b>Bloom's Taxonomy level mapping</b> |
|--------------|--------------|-----------------------|-------------------------------|---------------------------------------|
| 1            | 1            | 0.90                  | C113.1                        | Remembering                           |
| 2            | 1            | 0.90                  | C113.4                        | Applying                              |
| 3            | 1            | 0.90                  | C113.1                        | Remembering                           |

|    |    |      |        |               |
|----|----|------|--------|---------------|
| 4  | 1  | 0.90 | C113.5 | Understanding |
| 5  | 1  | 0.90 | C113.5 | Understanding |
| 6  | 1  | 0.90 | C113.4 | Analyzing     |
| 7  | 1  | 0.90 | C113.1 | Remembering   |
| 8  | 1  | 0.90 | C113.1 | Understanding |
| 9  | 1  | 0.90 | C113.4 | Applying      |
| 10 | 1  | 0.90 | C113.6 | Applying      |
| 11 | 10 | 9.09 | C113.1 | Remembering   |
| 12 | 10 | 9.09 | C113.2 | Creating      |
| 13 | 10 | 9.09 | C113.1 | Understanding |
| 14 | 10 | 9.09 | C113.5 | Analyzing     |
| 15 | 10 | 9.09 | C113.4 | Understanding |
| 16 | 10 | 9.09 | C113.5 | Analyzing     |
| 17 | 10 | 9.09 | C113.1 | Understanding |
| 18 | 10 | 9.09 | C113.3 | Understanding |
| 19 | 10 | 9.09 | C113.3 | Remembering   |
| 20 | 10 | 9.09 | C113.6 | Creating      |

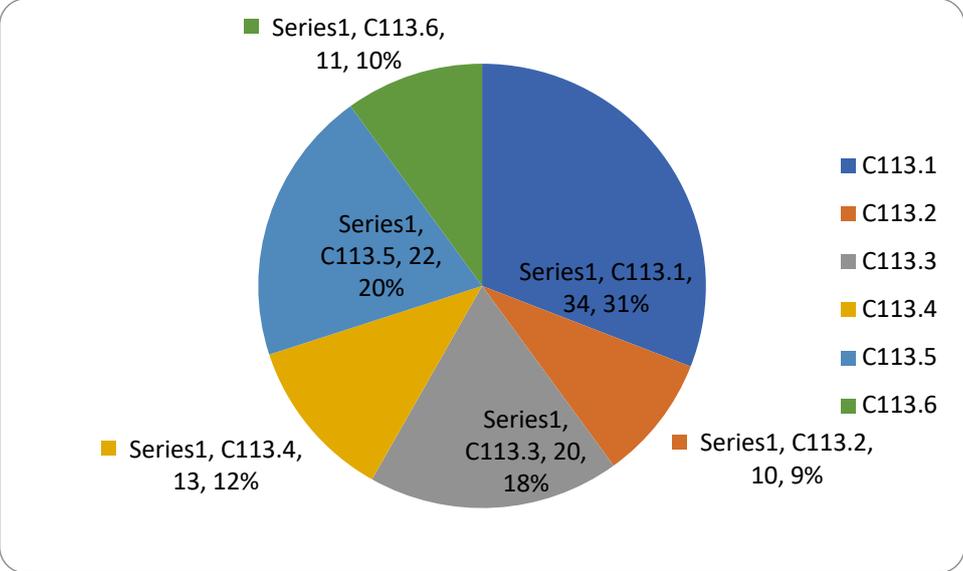
## CO & BT Bloom's Taxonomy level mapping

| CO            | MARKS  |
|---------------|--------|
| Remembering   | 20.9%  |
| Understanding | 39.09% |
| Applying      | 2.72%  |
| Analyzing     | 19.09% |
| Create        | 18.18% |



## UNIT WISE MARKS GIVEN IN END EXAM

| CO     | MARKS | PERCENTAGE |
|--------|-------|------------|
| C113.1 | 34    | 30.9%      |
| C113.2 | 10    | 9.09%      |
| C113.3 | 20    | 18.18%     |
| C113.4 | 13    | 11.8%      |
| C113.5 | 22    | 20%        |
| C113.6 | 11    | 10%        |





Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science & Engineering

**Programming for problem solving Assignment Questions**

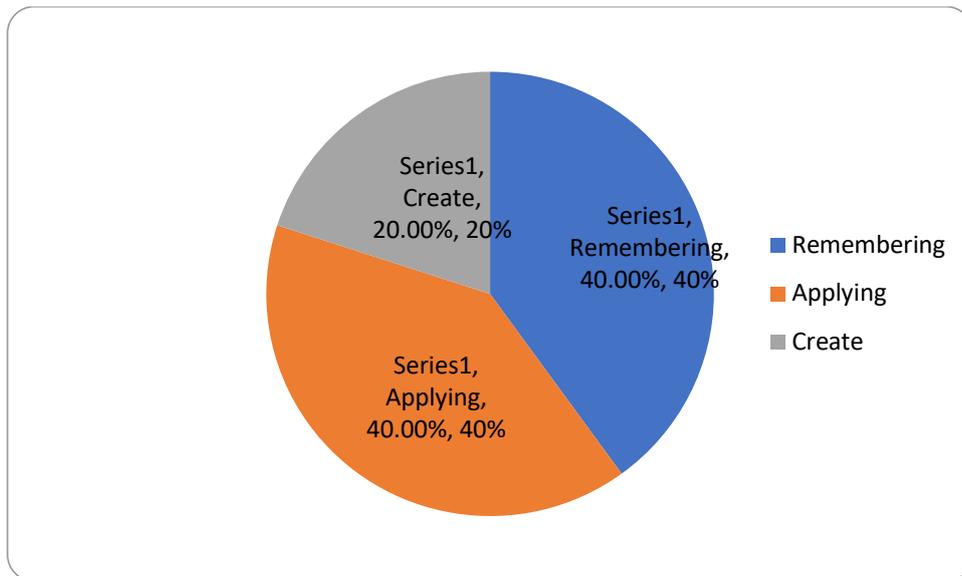
**Assignment — Mid-I**

1. List the steps and draw flowchart to print biggest of three numbers.
2. Explain branching statements with example.
3. Explain string handling functions with an example.
4. Write a C program for addition of a matrix.
5. Explain the purpose and usage of preprocessor directives

**CO & BT Mapping for Assignment- Mid- I**

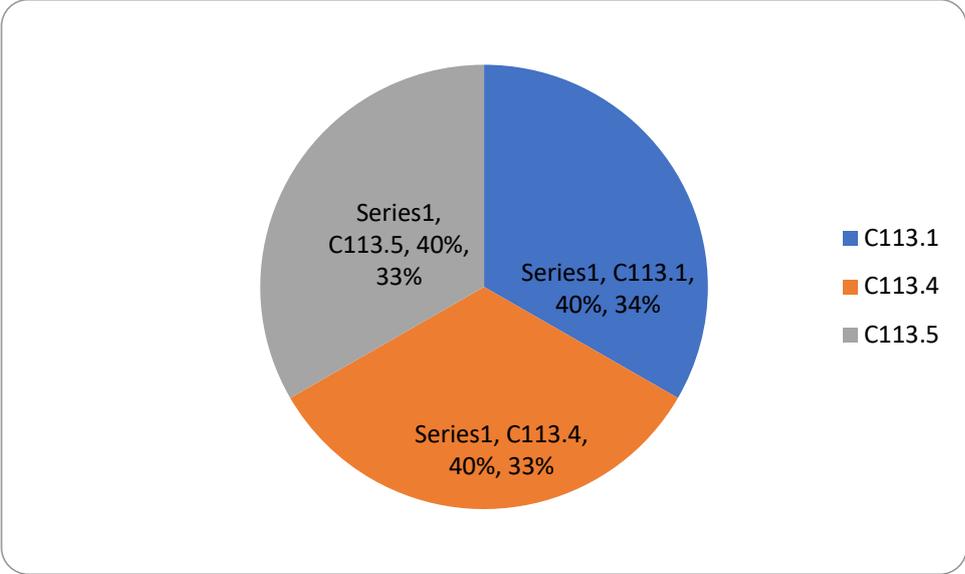
| Qno | Marks | Percentage (%) | Course outcome mapping | Bloom's Taxonomy level mapping |
|-----|-------|----------------|------------------------|--------------------------------|
| 1   | 1     | 20             | C113.1                 | Remembering                    |
| 2   | 1     | 20             | C113.1                 | Remembering                    |
| 3   | 1     | 20             | C113.5                 | Applying                       |
| 4   | 1     | 20             | C113.5                 | Applying                       |
| 5   | 1     | 20             | C113.4                 | Creating                       |

**Bloom's Taxonomy level mapping**



**UNIT WISE MARKS GIVEN IN ASSIGNMENT FOR MID-I EXAM**

| <b>CO</b>     | <b>MARKS</b> | <b>PERCENTAGE</b> |
|---------------|--------------|-------------------|
| <b>C113.1</b> | 2            | 40%               |
| <b>C113.4</b> | 1            | 40%               |
| <b>C113.5</b> | 2            | 40%               |
|               |              |                   |





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Department of Electronics & Communication Engineering

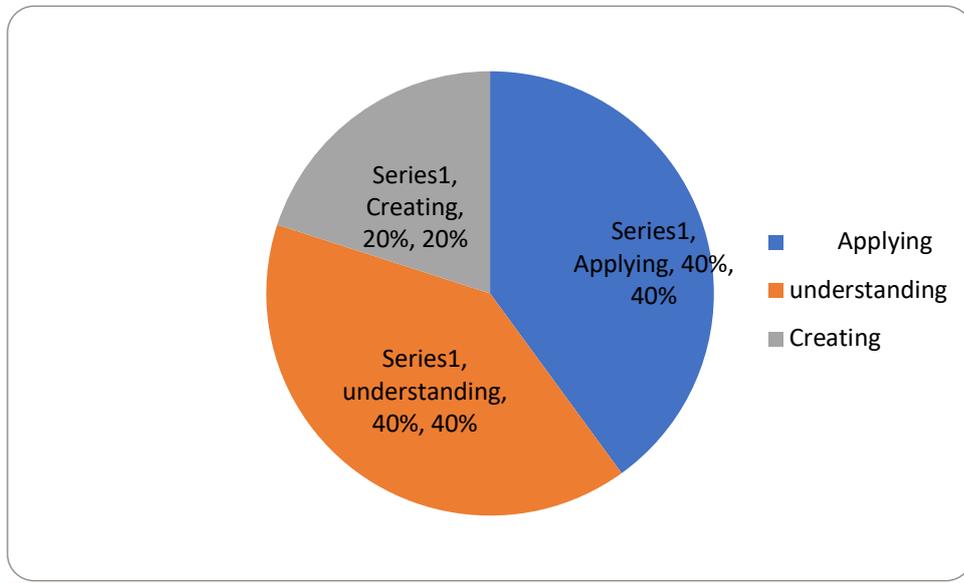
### Assignment — Mid-II

1. Discuss about following with an example a) malloc b) calloc c) realloc d) free
2. Explain Parameters and return types of function
3. Explain about recursive function with an example.
4. Explain Binary search technique with example
5. Choose any one of the sorting technique and sort the following numbers  
34,5,67,8,435,2,78,45,12,15,24

### CO & BT Mapping for Assignment- Mid-II

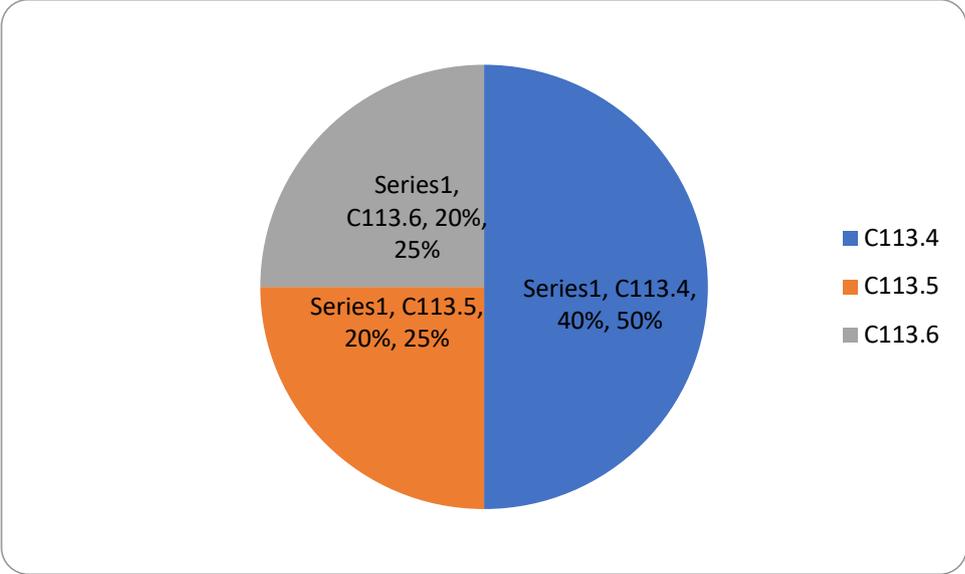
| Question no. | Marks | Percentage (%) | Course outcome mapping | Bloom's Taxonomy level mapping |
|--------------|-------|----------------|------------------------|--------------------------------|
| 1            | 1     | 20             | C113.5                 | Applying                       |
| 2            | 1     | 20             | C113.4                 | Understanding                  |
| 3            | 1     | 20             | C113.4                 | Understanding                  |
| 4            | 1     | 20             | C113.6                 | Applying                       |
| 5            | 1     | 20             | C113.6                 | Creating                       |

### Bloom's Taxonomy level mapping



### **UNIT WISE MARKS GIVEN IN ASSIGNMENT FOR MID-II EXAM**

| <b>CO</b>     | <b>MARKS</b> | <b>PERCENTAGE</b> |
|---------------|--------------|-------------------|
| <b>C113.4</b> | 2            | 40%               |
| <b>C113.5</b> | 1            | 20%               |
| <b>C113.6</b> | 2            | 20%               |
|               |              |                   |





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Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501 510. NBA & NAAC Accredited

Name: Y. Sai Koushik Course: B.tech Year/Branch: 1<sup>st</sup> yr CSE-D

Subject: PPS Date: 4/3/23 Examination: Mid 3

|           |
|-----------|
| <b>D4</b> |
| <u>26</u> |
| <b>30</b> |
| MARKS     |

No. 22D41A0506 **MID - I/II EVALUATION**

| PART-A                          |     |     |     |     |                                       |       |     |                           |               | PART-B           |    | TOTAL MARKS |        |                                                                                                          |
|---------------------------------|-----|-----|-----|-----|---------------------------------------|-------|-----|---------------------------|---------------|------------------|----|-------------|--------|----------------------------------------------------------------------------------------------------------|
| A1 - MCQ'S:<br>(10 x 0.5 = 5M)  |     |     |     |     | A2-FILL IN THE BLANKS<br>6 x 0.5 = 3M |       |     | A3-MATCHING<br>2 x 1 = 2M |               | MAX MARKS 20     |    | PART-A      | 7.5    |                                                                                                          |
| Q.NO                            | 1   | 2   | 3   | 4   | 5                                     | Q.NO  | 11  | 12                        | 13            | Q.NO             | 17 | 18          | PART-B | 18                                                                                                       |
| MARKS                           | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0   | 0                         | 0.5           | MARKS            | 1  | 1           | A+B    | 25.5                                                                                                     |
| Q.NO                            | 6   | 7   | 8   | 9   | 10                                    | Q.NO  | 14  | 15                        | 16            | 0.25 for a match |    | 19          |        |                                                                                                          |
| MARKS                           | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0.5 | 0.5                       | 0.5           |                  |    | 20          |        |                                                                                                          |
| TOTAL OF A1 =                   | 3.5 |     |     |     | TOTAL OF A2 =                         | 2     |     |                           | TOTAL OF A3 = | 2                |    | 21          | 4      | <br>Faculty Signature |
| PART A TOTAL A1 + A2 + A3 = 7.5 |     |     |     |     |                                       |       |     |                           |               | 22               | 5  | 23          | 4      |                                                                                                          |
|                                 |     |     |     |     |                                       |       |     |                           |               | 24               | 5  | TOT         | 18     |                                                                                                          |
|                                 |     |     |     |     |                                       |       |     |                           |               |                  |    |             |        |                                                                                                          |
|                                 |     |     |     |     |                                       |       |     |                           |               |                  |    |             |        |                                                                                                          |

*Sulraty*  
Controller of Examinations

## PART-B

### Recursive function:

- The <sup>Process</sup> function in which the function calls itself is known as recursive function and that process is known as recursion.
- The recursive function reduces the complex problems into the simple problems.
- In the recursive function we can avoid the for loops and the number of iterations.
- We use an if statement to return a value to the function since we use the keyword return in the recursive function.



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Sheriguda (V), Ibrahimpatnam (M), Rangas Reddy Dist - 501 510. NBA & NAAC Accredited

Name: S. Jaswitha Course: 2-Steck Year/Branch: 2022/CEED

Subject: programming for problem solving Date: 04-03-23 Examination: Mid-II

H.T. No. 22D41A05M7 MID - I/II EVALUATION

**D4**  
12  
**30**  
 MARKS

*Shrey*  
*out of 30*

| PART-A                                                                                                                                |                   |     |                 |     | PART-B                                    |                  | TOTAL MARKS        |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----|-----------------|-----|-------------------------------------------|------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|--|----|---|----|--|----|---|----|--|----|--|-----|---|------------------------------------------------------------------------------------------------------------------------|--|-------------------|--|--------------|--|
| A1 - MCQ'S<br>(10 x 0.5 = 5M)                                                                                                         |                   |     |                 |     | A2 - FILL IN THE BLANKS<br>(6 x 0.5 = 3M) |                  | MAX MARKS 20       |                                                                                                                                                                                                                                                   | PART-A | 8  |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| Q.NO                                                                                                                                  | 1                 | 2   | 3               | 4   | 5                                         | Q.NO             | 17                 | 18                                                                                                                                                                                                                                                | PART-B | 4  |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| MARKS                                                                                                                                 | 0.5               | 0.5 | 0.5             | 0.5 | 0.5                                       | MARKS            | 1                  | 1                                                                                                                                                                                                                                                 | A+B    | 12 |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| Q.NO                                                                                                                                  | 6                 | 7   | 8               | 9   | 10                                        | 0.25 for a match |                    | <table border="1"> <tr><td>19</td><td></td></tr> <tr><td>20</td><td>2</td></tr> <tr><td>21</td><td></td></tr> <tr><td>22</td><td>2</td></tr> <tr><td>23</td><td></td></tr> <tr><td>24</td><td></td></tr> <tr><td>TOT</td><td>4</td></tr> </table> |        | 19 |  | 20 | 2 | 21 |  | 22 | 2 | 23 |  | 24 |  | TOT | 4 | <table border="1"> <tr><td colspan="2">Faculty Signature</td></tr> <tr><td colspan="2"><i>Shrey</i></td></tr> </table> |  | Faculty Signature |  | <i>Shrey</i> |  |
| 19                                                                                                                                    |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| 20                                                                                                                                    | 2                 |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| 21                                                                                                                                    |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| 22                                                                                                                                    | 2                 |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| 23                                                                                                                                    |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| 24                                                                                                                                    |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| TOT                                                                                                                                   | 4                 |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| Faculty Signature                                                                                                                     |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| <i>Shrey</i>                                                                                                                          |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| MARKS                                                                                                                                 | 0.5               | 0.5 | 0.5             | 0.5 | 0                                         | TOTAL OF A3 = 2  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| TOTAL OF A1 = 4.5                                                                                                                     | TOTAL OF A2 = 1.5 |     | TOTAL OF A3 = 2 |     | PART A TOTAL A1 + A2 + A3 = 8             |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| <table border="1"> <tr><td colspan="2">Controller of Examinations</td></tr> <tr><td colspan="2"><i>S. Jaswitha</i></td></tr> </table> |                   |     |                 |     | Controller of Examinations                |                  | <i>S. Jaswitha</i> |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| Controller of Examinations                                                                                                            |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |
| <i>S. Jaswitha</i>                                                                                                                    |                   |     |                 |     |                                           |                  |                    |                                                                                                                                                                                                                                                   |        |    |  |    |   |    |  |    |   |    |  |    |  |     |   |                                                                                                                        |  |                   |  |              |  |

part-B.

Q4A Binary search.

It will divide and conquer. It will have the union of intervals. It is applicable for to find the lower / upper bound in an ordered sequence. It is also applicable for ~~Debugging~~.



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Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501 510. NBA & NAAC Accredited

Name: M. Sai Indu Course: B.Tech Year/Branch: 1<sup>st</sup> yr/CSE

Subject: programming for problem Date: 09-05-2023 Examination: MID-2

H.T. No. 22091A05R6 MID - I/II EVALUATION

D4  
9  
30  
MARKS

| A1 - MCQ'S:     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|
| (10 x 0.5 = 5M) |     |     |     |     |     |
| Q. NO           | 1   | 2   | 3   | 4   | 5   |
| MARKS           | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Q. NO           | 6   | 7   | 8   | 9   | 10  |
| MARKS           | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| TOTAL OF A1 =   | 4   |     |     |     |     |

| A2-FILL IN THE BLANKS |     |     |     |
|-----------------------|-----|-----|-----|
| (6 x 0.5 = 3M)        |     |     |     |
| Q. NO                 | 11  | 12  | 13  |
| MARKS                 | 0.5 | 0.5 | 0.5 |
| Q. NO                 | 14  | 15  | 16  |
| MARKS                 | 0.5 | 0.5 | 0.5 |
| TOTAL OF A2 =         | 1.5 |     |     |

| A3-MATCHING      |     |     |
|------------------|-----|-----|
| (2 x 1 = 2M)     |     |     |
| Q. NO            | 17  | 18  |
| MARKS            | 0.5 | 0.5 |
| 0.25 for a match |     |     |
| TOTAL OF A3 =    | 1.5 |     |

| PART-B       |       |
|--------------|-------|
| MAX MARKS 20 |       |
| Q. NO.       | MARKS |
| 19           |       |
| 20           | 01    |
| 21           |       |
| 22           |       |
| 23           |       |
| 24           | 0     |
| TOT          | 3     |

| TOTAL MARKS |   |
|-------------|---|
| PART-A      | 6 |
| PART-B      | 3 |
| A+B         | 9 |

Faculty Signature

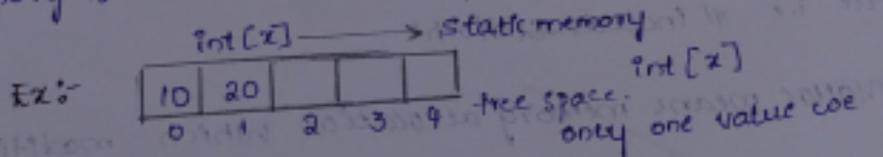
Srinivas  
Controller of Examinations

part-B.

22 Dynamic memory Allocation

Dynamic memory allocation means to create a memory in a run time.

The process of dynamic memory allocation in which the time of memory is execution is called dynamic memory allocation.



Here, we can store many values of [10] can store



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Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501 510. NBA & NAAC Accredited

Name : A. Tejaswini Reddy Course: B.Tech 1<sup>st</sup> yr. Year/Branch: 1<sup>st</sup> yr / CS-E

Subject: PPS Date: 31-12-2022 Examination: 1<sup>st</sup> mid

H.T. No. 22D41A6203 MID - I/II EVALUATION

|           |
|-----------|
| <b>D4</b> |
| <u>29</u> |
| <b>30</b> |
| MARKS     |

| PART-A                         |     |     |     |     |                                       |       |     |                           |     |                  |    | PART-B |       | TOTAL MARKS |     |    |        |    |  |
|--------------------------------|-----|-----|-----|-----|---------------------------------------|-------|-----|---------------------------|-----|------------------|----|--------|-------|-------------|-----|----|--------|----|--|
| A1 - MCQ'S:<br>(10 x 0.5 = 5M) |     |     |     |     | A2-FILL IN THE BLANKS<br>6 x 0.5 = 3M |       |     | A3-MATCHING<br>2 x 1 = 2M |     | MAX MARKS 20     |    | PART-A |       | 9           |     |    |        |    |  |
| Q.NO                           | 1   | 2   | 3   | 4   | 5                                     | Q.NO  | 11  | 12                        | 13  | Q.NO             | 17 | 18     | Q.NO. | MARKS       | 19  | 5  | PART-B | 20 |  |
| MARKS                          | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0.5 | 0.5                       | 0   | MARKS            | 1  | 1      | 20    | 5           | A+B | 29 |        |    |  |
| Q.NO                           | 6   | 7   | 8   | 9   | 10                                    | Q.NO  | 14  | 15                        | 16  | 0.25 for a match |    | 21     | 5     |             |     |    |        |    |  |
| MARKS                          | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0.5 | 0                         | 0.5 |                  |    | 22     |       |             |     |    |        |    |  |
| TOTAL OF A1 = 5                |     |     |     |     | TOTAL OF A2 = 9                       |       |     | TOTAL OF A3 = 2           |     | 23               | 5  |        |       |             |     |    |        |    |  |
| PART A TOTAL A1 + A2 + A3 = 9  |     |     |     |     |                                       |       |     |                           |     |                  |    | 24     |       |             |     |    |        |    |  |
|                                |     |     |     |     |                                       |       |     |                           |     |                  |    | TOT    | 20    |             |     |    |        |    |  |

*Tejaswini*  
Controller of Examinations

*Prasad*  
31/12/22  
Faculty Signature

## Part-B.

29) Switch:  
Switch is a multi-way statement. It is a conditional statement. Switch, break terms are imbedded in c library. It is a conditional statement.

### Syntax:

```
Switch (expression)
{
  case label1: statement 1;
  break;
  case label2: statement 2;
  break;
```



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Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501 510. NBA & NAAC Accredited

Name: M. MANIDEEP Course: B-Tech Year/Branch: 1<sup>st</sup> yr/cs

Subject: PPS Date: 31/12/2022 Examination: 1<sup>st</sup> sem / 1<sup>st</sup> - MID

H.T. No. 22D41A6255 **MID - I/II EVALUATION**

|           |
|-----------|
| <b>D4</b> |
| <b>20</b> |
| <b>30</b> |
| MARKS     |

*Handwritten initials*

| PART-A                                                                                                           |     |     |     |     |                                       |       |     |     |                           |                  |    |    | PART-B       |       | TOTAL MARKS |        |     |
|------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|---------------------------------------|-------|-----|-----|---------------------------|------------------|----|----|--------------|-------|-------------|--------|-----|
| A1 - MCQ'S:<br>(10 x 0.5 = 5M)                                                                                   |     |     |     |     | A2-FILL IN THE BLANKS<br>6 x 0.5 = 3M |       |     |     | A3-MATCHING<br>2 x 1 = 2M |                  |    |    | MAX MARKS 20 |       | PART-A      | PART-B | A+B |
| Q.NO                                                                                                             | 1   | 2   | 3   | 4   | 5                                     | Q.NO  | 11  | 12  | 13                        | Q.NO             | 17 | 18 | Q.NO         | MARKS | PART-A      | PART-B | A+B |
| MARKS                                                                                                            | 0   | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0   | 0.5 | -                         | MARKS            | 1  | 1  | 19           | 5     | 8           | 12     | 20  |
| Q.NO                                                                                                             | 6   | 7   | 8   | 9   | 10                                    | Q.NO  | 14  | 15  | 16                        | 0.25 for a match |    |    | 20           | 1     |             |        |     |
| MARKS                                                                                                            | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                   | MARKS | 0.5 | -   | 0.5                       |                  |    |    | 21           | 4.5   |             |        |     |
| TOTAL OF A1 = 4.5                                                                                                |     |     |     |     | TOTAL OF A2 = 1.5                     |       |     |     | TOTAL OF A3 = 2           |                  |    |    | 22           | 1.5   |             |        |     |
| PART A TOTAL A1 + A2 + A3 = 8                                                                                    |     |     |     |     |                                       |       |     |     |                           |                  |    |    | 23           |       |             |        |     |
| <br>Controller of Examinations |     |     |     |     |                                       |       |     |     |                           |                  |    |    | 24           |       |             |        |     |
|                                                                                                                  |     |     |     |     |                                       |       |     |     |                           |                  |    |    | TOT          | 12    |             |        |     |

0. 0.5 0.5 1.5 3.5

## Part-B

20. Switch: It gives the response to the given values of Variables.

Syntax:

```

void main ( )
{
  statement label 1: field 1;
  statement label 2; field 2;
  ...
  statement label n: field n;
  Default: statement Default;
}

```



# Sri Indu College of Engineering & Technology

(An Autonomous Institution under UGC, New Delhi)  
Recognized under 2(f) and 12(B) of UGC Act 1956

(Approved by AICTE, New Delhi & Permanently Affiliated to JNTUH, Hyderabad.)  
Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501 510. NBA & NAAC Accredited

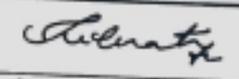
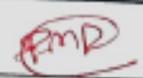
Name: G. Vinay Kumar Course: B.Tech Year/Branch: I - CS

Subject: Programming & Problem Solving Date: 31-12-22 Examination: I-Mid/I-Sem

H.T. No. 22041AG230

## MID - I/II EVALUATION

|           |
|-----------|
| <b>D4</b> |
| <u>10</u> |
| <b>30</b> |
| MARKS     |

| PART-A                                                                                                           |     |     |     |     | PART-B                                       |       | TOTAL MARKS                      |     |                     |                                                                                                          |    |                         |                    |                      |       |       |       |       |    |  |
|------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|----------------------------------------------|-------|----------------------------------|-----|---------------------|----------------------------------------------------------------------------------------------------------|----|-------------------------|--------------------|----------------------|-------|-------|-------|-------|----|--|
| <b>A1 - MCQ'S:</b><br>(10 x 0.5 = 5M)                                                                            |     |     |     |     | <b>A2-FILL IN THE BLANKS</b><br>6 x 0.5 = 3M |       | <b>A3-MATCHING</b><br>2 x 1 = 2M |     | <b>MAX MARKS 20</b> |                                                                                                          |    |                         |                    |                      |       |       |       |       |    |  |
| Q.NO                                                                                                             | 1   | 2   | 3   | 4   | 5                                            | Q.NO  | 11                               | 12  | 13                  | Q.NO                                                                                                     | 17 | 18                      | Q.NO.              | MARKS                | Q.NO. | MARKS | Q.NO. | MARKS |    |  |
| MARKS                                                                                                            | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                          | MARKS | 0.5                              | 0   | 0.5                 | MARKS                                                                                                    | 1  | 1                       | 19                 | 1                    | 20    |       | 21    |       | 22 |  |
| Q.NO                                                                                                             | 6   | 7   | 8   | 9   | 10                                           | Q.NO  | 14                               | 15  | 16                  | 0.25 for a match                                                                                         |    |                         | 23                 |                      | 24    |       | TOT   | 1     |    |  |
| MARKS                                                                                                            | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                                          | MARKS | 0.5                              | 0.5 | 0                   | TOTAL OF A3 = <u>2</u>                                                                                   |    |                         | <b>TOTAL MARKS</b> |                      |       |       |       |       |    |  |
| TOTAL OF A1 = <u>5</u>                                                                                           |     |     |     |     | TOTAL OF A2 = <u>1</u>                       |       |                                  |     |                     | <b>PART-A</b> <u>9</u>                                                                                   |    | <b>PART-B</b> <u>1</u>  |                    | <b>A+B</b> <u>10</u> |       |       |       |       |    |  |
| <br>Controller of Examinations |     |     |     |     | <b>PART A TOTAL A1 + A2 + A3 = <u>9</u></b>  |       |                                  |     |                     | <br>Faculty Signature |    | <i>d.v. dyamatharan</i> |                    |                      |       |       |       |       |    |  |

### Part-B

22A Types of Operator: The Operator is a Symbolic to defined a relation in between two elements are Operators.

- 1) Arithmetic → + - × / %
- 2) Relational →
- 3) Logical
- 4)



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

**TUTORIAL LESSON PLAN**

| Unit/<br>Item<br>No. | Topic (s)                                                   | Text<br>Book /<br>Reference | Type of<br>teaching<br>methodology | Proposed<br>No. of<br>Periods |
|----------------------|-------------------------------------------------------------|-----------------------------|------------------------------------|-------------------------------|
| 1                    | Problem Solving<br>Techniques—Algorithm                     | TB1                         | Black Board                        | 1                             |
| 2                    | Flowchart                                                   | TB2                         | Black Board                        | 1                             |
| 2                    | Pseudo code                                                 | RB5                         | Black Board                        | 1                             |
| 3                    | Data Types                                                  | TB2                         | Black Board                        | 1                             |
| 4                    | Operators                                                   | TB2                         | Black Board                        | 1                             |
| 5                    | Conditional Branching                                       | TB2                         | Black Board                        | 1                             |
| 6                    | Loop Control Structures                                     | TB2                         | Black Board                        | 1                             |
| 7                    | Arrays                                                      | TB2                         | Black Board                        | 1                             |
| 8                    | Structures and Unions                                       | TB2                         | Black Board                        | 1                             |
| 9                    | Function parameters(call by<br>value and call by reference) | TB2                         | Black Board                        | 1                             |
| 10                   | Recursion example                                           | TB2                         | Black Board                        | 1                             |
| 11                   | Pointers (Arrays of pointers)                               | TB2                         | Black Board                        | 1                             |
| 12                   | Dynamic memory allocation                                   | TB2                         | Black Board                        | 1                             |
| 13                   | Operations on Files                                         | TB2                         | Black Board                        | 1                             |
| 14                   | File merging                                                | TB2                         | Black Board                        | 1                             |
| 15                   | Comparison of sorting<br>methods                            | TB2                         | Black Board                        | 1                             |

Faculty Signature



**Department of Computer Science and Engineering**

Result analysis to identify weak and advanced learners is done 3 times (Beginning of the Semester, After I mid, before II mid) in a semester.

Weak and advanced learners are identified based on their overall performance in I Semester.

**PHASE – I : BEFORE I MID**

Before I Mid the students are analyzed based on their intermediate results, prerequisite course feedback. 23 students are identified as weak learners, for those Remedial classes were conducted.

| S.No. | Student Roll Number | S.No | Student Roll Number |
|-------|---------------------|------|---------------------|
| 1     | 22D41A0505          | 13   | 22D41A0542          |
| 2     | 22D41A0507          | 14   | 22D41A0547          |
| 3     | 22D41A0514          | 15   | 22D41A0552          |
| 4     | 22D41A0515          | 16   | 22D41A0558          |
| 5     | 22D41A0516          | 17   | 22D41A0564          |
| 6     | 22D41A0517          | 18   | 22D41A0569          |
| 7     | 22D41A0518          | 19   | 22D41A0587          |
| 8     | 22D41A0531          | 20   | 22D41A0598          |
| 9     | 22D41A0532          | 21   | 22D41A05C4          |
| 10    | 22D41A0534          | 22   | 22D41A05L3          |
| 11    | 22D41A0536          | 23   | 22D41A05N9          |
| 12    | 22D41A0541          |      |                     |

**PHASE – II: AFTER I MID**

After I Mid, the student's performance is analyzed based on the I MID Marks, observation and feedback. The students who got < 50% (marks below 18) of our mid or internal evaluation in I MID are identified as weak learners as given below, 14 students are identified, for them Remedial classes were conducted.

| S.No | Student Roll Number | S.No | Student Roll Number | S.No | Student Roll Number |
|------|---------------------|------|---------------------|------|---------------------|
|      |                     |      |                     |      |                     |
| 1    | 22D41A0505          | 6    | 22D41A0531          | 11   | 22D41A0542          |
| 2    | 22D41A0515          | 7    | 22D41A0532          | 12   | 22D41A0547          |
| 3    | 22D41A0517          | 8    | 22D41A0536          | 13   | 22D41A0556          |
| 4    | 22D41A0520          | 9    | 22D41A0540          | 14   | 22D41A05C4          |
| 5    | 22D41A0530          | 10   | 22D41A0541          |      |                     |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

**PHASE – III: BEFORE II MID**

After 3<sup>rd</sup> week from I Mid, the student is analyzed based on the previous semester results, observation and feedback. The students who got < 60% (marks below18) of our mid or internal evaluation in I MID are identified as weak learners as given below, 14 students are identified, for them Remedial classes were conducted.

| <b>S.No.</b> | <b>Student Roll Number</b> |
|--------------|----------------------------|
| 1            | 22D41A0505                 |
| 2            | 22D41A0515                 |
| 3            | 22D41A0517                 |
| 4            | 22D41A0520                 |
| 5            | 22D41A0530                 |
| 6            | 22D41A0531                 |
| 7            | 22D41A0532                 |
| 8            | 22D41A0536                 |
| 9            | 22D41A0540                 |
| 10           | 22D41A0541                 |
| 11           | 22D41A0542                 |
| 12           | 22D41A0547                 |
| 13           | 22D41A0556                 |
| 14           | 22D41A05C4                 |

**Faculty**

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**Department of Computer Science and Engineering**

For Advanced Learners marks > 80% (above 28 marks), the students are identified as the advanced learners. For them seminars / ppts / small project works were assigned.

| S.No | Date | Roll.No.   | Name of the Student | Seminar/PPT/project Topic name      | Student sign | Remarks |
|------|------|------------|---------------------|-------------------------------------|--------------|---------|
| 1    |      | 22D41A0509 | Rakesh naik         | Structure of a C program            |              |         |
| 2    |      | 22D41A0511 | Dayakar             | Arrays                              |              |         |
| 3    |      | 22D41A0512 | Kalian              | Structures                          |              |         |
| 4    |      | 22D41A0523 | Satish reddy        | Data types                          |              |         |
| 5    |      | 22D41A0524 | Anushna             | Operators                           |              |         |
| 6    |      | 22D41A0527 | Hari Prasad         | Input and output statements         |              |         |
| 7    |      | 22D41A0554 | Harshith reddy      | Loops                               |              |         |
| 8    |      | 22D41A0577 | Sujith reddy        | Conditional control statements      |              |         |
| 9    |      | 22D41A05A8 | Manasa              | Pointers                            |              |         |
| 10   |      | 22D41A05D3 | Jhansi              | Storage classes                     |              |         |
| 11   |      | 22D41A05D8 | Khalid              | Functions and types                 |              |         |
| 12   |      | 22D41A05F2 | Abhinav reddy       | Files                               |              |         |
| 13   |      | 22D41A05F8 | Poojitha            | Dynamic memory allocation           |              |         |
| 14   |      | 22D41A05K2 | Sree harshitha      | Pointer to pointer and its usage    |              |         |
| 15   |      | 22D41A05K7 | Ankitha             | Switch case statement               |              |         |
| 16   |      | 22D41A05L6 | Sai teja reddy      | Types of errors                     |              |         |
| 17   |      | 22D41A05L8 | Anand               | Compiling and executing a C program |              |         |
| 18   |      | 22D41A05M1 | Dilawar             | Strings                             |              |         |

**Faculty**



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Department of Computer Science and Engineering

**Advance learners-seminar book:** Internal marks above 28 the students are identified as the advanced learners. For them seminars / ppts / small project works were assigned.

| S.No | Date | Roll. No.  | Name of the Student | Seminar/PPT/project Topic name      | Signature of the student | Remarks | Sign |
|------|------|------------|---------------------|-------------------------------------|--------------------------|---------|------|
| 1    |      | 22D41A0509 | Rakesh naik         | Structure of a C program            |                          |         |      |
| 2    |      | 22D41A0511 | Dayakar             | Arrays                              |                          |         |      |
| 3    |      | 22D41A0512 | Kalian              | Structures                          |                          |         |      |
| 4    |      | 22D41A0523 | Satish reddy        | Data types                          |                          |         |      |
| 5    |      | 22D41A0524 | Anushna             | Operators                           |                          |         |      |
| 6    |      | 22D41A0527 | Hari Prasad         | Input and output statements         |                          |         |      |
| 7    |      | 22D41A0554 | Harshith reddy      | Loops                               |                          |         |      |
| 8    |      | 22D41A0577 | Sujith reddy        | Conditional control statements      |                          |         |      |
| 9    |      | 22D41A05A8 | Manasa              | Pointers                            |                          |         |      |
| 10   |      | 22D41A05D3 | Jhansi              | Storage classes                     |                          |         |      |
| 11   |      | 22D41A05D8 | Khalid              | Functions and types                 |                          |         |      |
| 12   |      | 22D41A05F2 | Abhinav reddy       | Files                               |                          |         |      |
| 13   |      | 22D41A05F8 | Poojitha            | Dynamic memory allocation           |                          |         |      |
| 14   |      | 22D41A05K2 | Sree harshitha      | Pointer to pointer and its usage    |                          |         |      |
| 15   |      | 22D41A05K7 | Ankitha             | Switch case statement               |                          |         |      |
| 16   |      | 22D41A05L6 | Sai teja reddy      | Types of errors                     |                          |         |      |
| 17   |      | 22D41A05L8 | Anand               | Compiling and executing a C program |                          |         |      |
| 18   |      | 22D41A05M1 | Dilawar             | Strings                             |                          |         |      |

Faculty Signature



Sri Indu College of Engineering & Technology :: Sheriguda (V), R.R.Dist

Department of Computer Science and Engineering

| S.No | Roll Number      | 1st Internal Exam | 2nd Internal Exam | Avg       | Seminar  | total     | Univer sity Exam | Total Marks |
|------|------------------|-------------------|-------------------|-----------|----------|-----------|------------------|-------------|
|      | <b>Max Marks</b> | <b>35</b>         | <b>35</b>         | <b>35</b> | <b>5</b> | <b>40</b> | <b>60</b>        |             |
| 1    | 22D41A0501       | 19                | 24                | 22        | 5        | 26        | 41               | 67          |
| 2    | 22D41A0502       | 14                | 15                | 15        | 5        | 19        | 28               | 47          |
| 3    | 22D41A0503       | 23                | 23                | 23        | 5        | 28        | 44               | 72          |
| 4    | 22D41A0504       | 18                | 17                | 18        | 5        | 22        | 25               | 47          |
| 5    | 22D41A0505       | 16                | 12                | 14        | 5        | 19        | 21               | 40          |
| 6    | 22D41A0506       | 24                | 20                | 22        | 5        | 26        | 37               | 63          |
| 7    | 22D41A0507       | 15                | 19                | 17        | 5        | 21        | 25               | 46          |
| 8    | 22D41A0508       | 15                | 22                | 19        | 5        | 23        | 39               | 62          |
| 9    | 22D41A0509       | 32                | 31                | 32        | 5        | 37        | 42               | 79          |
| 10   | 22D41A0510       | 23                | 24                | 24        | 5        | 29        | 38               | 67          |
| 11   | 22D41A0511       | 30                | 31                | 31        | 5        | 36        | 39               | 75          |
| 12   | 22D41A0512       | 28                | 29                | 29        | 5        | 34        | 42               | 76          |
| 13   | 22D41A0513       | 10                | 18                | 14        | 5        | 19        | 36               | 55          |
| 14   | 22D41A0514       | 12                | 16                | 14        | 5        | 19        | 6                | 25          |
| 15   | 22D41A0515       | 18                | 10                | 14        | 5        | 19        | 15               | 34          |
| 16   | 22D41A0516       | 20                | 18                | 19        | 5        | 23        | 26               | 49          |
| 17   | 22D41A0517       | 15                | 13                | 14        | 5        | 18        | 16               | 34          |
| 18   | 22D41A0518       | 15                | 16                | 16        | 5        | 20        | 34               | 54          |

|    |            |    |    |    |   |    |    |    |
|----|------------|----|----|----|---|----|----|----|
| 19 | 22D41A0519 | 19 | 18 | 19 | 5 | 23 | 33 | 56 |
| 20 | 22D41A0520 | 15 | 14 | 15 | 5 | 19 | 22 | 41 |
| 21 | 22D41A0521 | 26 | 27 | 27 | 5 | 32 | 49 | 81 |
| 22 | 22D41A0522 | 27 | 23 | 25 | 5 | 30 | 28 | 58 |
| 23 | 22D41A0523 | 29 | 31 | 30 | 5 | 35 | 48 | 83 |
| 24 | 22D41A0524 | 33 | 32 | 33 | 5 | 38 | 50 | 88 |
| 25 | 22D41A0525 | 16 | 18 | 17 | 5 | 21 | 23 | 44 |
| 26 | 22D41A0526 | 15 | 24 | 20 | 5 | 24 | 31 | 55 |
| 27 | 22D41A0527 | 29 | 30 | 30 | 5 | 35 | 52 | 87 |
| 28 | 22D41A0528 | 17 | 18 | 18 | 5 | 22 | 31 | 53 |
| 29 | 22D41A0529 | 21 | 22 | 22 | 5 | 27 | 47 | 74 |
| 30 | 22D41A0530 | 16 | 12 | 14 | 5 | 19 | 29 | 48 |
| 31 | 22D41A0531 | 18 | 11 | 15 | 5 | 19 | 14 | 33 |
| 32 | 22D41A0532 | 14 | 14 | 14 | 5 | 19 | 37 | 56 |
| 33 | 22D41A0533 | 14 | 20 | 17 | 5 | 21 | 30 | 51 |
| 34 | 22D41A0534 | 19 | 15 | 17 | 5 | 21 | 27 | 48 |
| 35 | 22D41A0535 | 25 | 23 | 24 | 5 | 29 | 37 | 66 |
| 36 | 22D41A0536 | 16 | 14 | 15 | 5 | 20 | 22 | 42 |
| 37 | 22D41A0537 | 14 | 16 | 15 | 5 | 20 | 30 | 50 |
| 38 | 22D41A0538 | 14 | 21 | 18 | 5 | 23 | 23 | 46 |
| 39 | 22D41A0539 | 15 | 24 | 20 | 5 | 24 | 37 | 61 |
| 40 | 22D41A0540 | 15 | 13 | 14 | 5 | 19 | 14 | 33 |
| 41 | 22D41A0541 | 18 | 13 | 16 | 5 | 20 | 17 | 37 |
| 42 | 22D41A0542 | 11 | 13 | 12 | 5 | 17 | 5  | 22 |
| 43 | 22D41A0543 | 24 | 28 | 26 | 5 | 31 | 36 | 67 |
| 44 | 22D41A0544 | 24 | 23 | 24 | 5 | 29 | 31 | 60 |

|    |            |    |    |    |   |    |    |    |
|----|------------|----|----|----|---|----|----|----|
| 45 | 22D41A0545 | 23 | 18 | 21 | 5 | 25 | 22 | 47 |
| 46 | 22D41A0546 | 17 | 20 | 19 | 5 | 22 | 34 | 56 |
| 47 | 22D41A0547 | 14 | 13 | 14 | 5 | 19 | 27 | 46 |
| 48 | 22D41A0548 | 16 | 27 | 22 | 5 | 26 | 35 | 61 |
| 49 | 22D41A0549 | 20 | 26 | 23 | 5 | 28 | 46 | 74 |
| 50 | 22D41A0550 | 14 | 16 | 15 | 5 | 20 | 31 | 51 |
| 51 | 22D41A0551 | 24 | 27 | 26 | 5 | 31 | 30 | 61 |
| 52 | 22D41A0552 | 17 | 11 | 14 | 5 | 19 | 30 | 49 |
| 53 | 22D41A0553 | 20 | 16 | 18 | 5 | 22 | 25 | 47 |
| 54 | 22D41A0554 | 31 | 34 | 33 | 5 | 38 | 38 | 76 |
| 55 | 22D41A0555 | 21 | 26 | 24 | 5 | 29 | 30 | 59 |
| 56 | 22D41A0556 | 14 | 13 | 14 | 5 | 19 | 4  | 23 |
| 57 | 22D41A0557 | 22 | 27 | 25 | 5 | 30 | 37 | 67 |
| 58 | 22D41A0558 | 15 | 15 | 15 | 5 | 19 | 21 | 40 |
| 59 | 22D41A0559 | 17 | 22 | 20 | 5 | 24 | 42 | 66 |
| 60 | 22D41A0560 | 19 | 22 | 21 | 5 | 25 | 33 | 58 |
| 61 | 22D41A0561 | 17 | 23 | 20 | 5 | 25 | 46 | 71 |
| 62 | 22D41A0562 | 14 | 19 | 17 | 5 | 21 | 29 | 50 |
| 63 | 22D41A0563 | 27 | 32 | 30 | 5 | 35 | 38 | 73 |
| 64 | 22D41A0564 | 15 | 15 | 15 | 5 | 19 | 16 | 35 |
| 65 | 22D41A0565 | 14 | 20 | 17 | 5 | 21 | 22 | 43 |
| 66 | 22D41A0566 | 14 | A  | 7  | A |    |    |    |
| 67 | 22D41A0567 | 15 | 22 | 19 | 5 | 23 | 21 | 44 |
| 68 | 22D41A0568 | 20 | 30 | 25 | 5 | 30 | 37 | 67 |
| 69 | 22D41A0569 | 11 | 16 | 14 | 5 | 18 | 11 | 29 |
| 70 | 22D41A0570 | 25 | 22 | 24 | 5 | 29 | 31 | 60 |

|           |                   |           |          |          |          |    |    |    |
|-----------|-------------------|-----------|----------|----------|----------|----|----|----|
| 71        | 22D41A0571        | 16        | 17       | 17       | 5        | 21 | 28 | 49 |
| 72        | 22D41A0572        | 25        | 25       | 25       | 5        | 30 | 34 | 64 |
| 73        | 22D41A0573        | 20        | 24       | 22       | 5        | 27 | 26 | 53 |
| 74        | 22D41A0574        | 23        | 27       | 25       | 5        | 30 | 41 | 71 |
| <b>75</b> | <b>22D41A0575</b> | <b>14</b> | <b>A</b> | <b>7</b> | <b>A</b> |    |    |    |
| 76        | 22D41A0576        | 19        | 25       | 22       | 5        | 27 | 21 | 48 |
| 77        | 22D41A0577        | 28        | 33       | 31       | 5        | 36 | 43 | 79 |
| 78        | 22D41A0578        | 20        | 20       | 20       | 5        | 24 | 13 | 37 |
| 79        | 22D41A0579        | 19        | 20       | 20       | 5        | 23 | 27 | 50 |
| 80        | 22D41A0580        | 21        | 21       | 21       | 5        | 26 | 39 | 65 |
| 81        | 22D41A0581        | 17        | 19       | 18       | 5        | 22 | 28 | 50 |
| 82        | 22D41A0582        | 18        | 21       | 20       | 5        | 24 | 13 | 37 |
| 83        | 22D41A0583        | 16        | 19       | 18       | 5        | 21 | 21 | 42 |
| 84        | 22D41A0584        | 19        | 23       | 21       | 5        | 26 | 38 | 64 |
| 85        | 22D41A0585        | 21        | 27       | 24       | 5        | 29 | 34 | 63 |
| 86        | 22D41A0586        | 14        | 27       | 21       | 5        | 26 | 32 | 58 |
| 87        | 22D41A0587        | 14        | 26       | 20       | 5        | 25 | 26 | 51 |
| 88        | 22D41A0588        | 18        | 28       | 23       | 5        | 28 | 42 | 70 |
| 89        | 22D41A0589        | 16        | 29       | 23       | 5        | 27 | 33 | 60 |
| 90        | 22D41A0590        | 22        | 30       | 26       | 5        | 31 | 40 | 71 |
| 91        | 22D41A0591        | 25        | 29       | 27       | 5        | 32 | 38 | 70 |
| 92        | 22D41A0592        | 18        | 24       | 21       | 5        | 26 | 36 | 62 |
| 93        | 22D41A0593        | 19        | 28       | 24       | 5        | 28 | 46 | 74 |
| 94        | 22D41A0594        | 23        | 28       | 26       | 5        | 31 | 38 | 69 |
| 95        | 22D41A0595        | 22        | 29       | 26       | 5        | 31 | 42 | 73 |
| 96        | 22D41A0596        | 19        | 25       | 22       | 5        | 27 | 30 | 57 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 97  | 22D41A0597 | 11 | 27 | 19 | 5 | 24 | 35 | 59 |
| 98  | 22D41A0598 | 12 | 27 | 20 | 5 | 25 | 31 | 56 |
| 99  | 22D41A0599 | 14 | 25 | 20 | 5 | 25 | 28 | 53 |
| 100 | 22D41A05A0 | 27 | 31 | 29 | 5 | 34 | 53 | 87 |
| 101 | 22D41A05A1 | 23 | 21 | 22 | 5 | 27 | 40 | 67 |
| 102 | 22D41A05A2 | 18 | 21 | 20 | 5 | 24 | 34 | 58 |
| 103 | 22D41A05A3 | 20 | 25 | 23 | 5 | 27 | 45 | 72 |
| 104 | 22D41A05A4 | 23 | 30 | 27 | 5 | 32 | 52 | 84 |
| 105 | 22D41A05A5 | 19 | 29 | 24 | 5 | 29 | 5  | 34 |
| 106 | 22D41A05A6 | 15 | 24 | 20 | 5 | 24 | 23 | 47 |
| 107 | 22D41A05A7 | 20 | 25 | 23 | 5 | 27 | 54 | 81 |
| 108 | 22D41A05A8 | 29 | 31 | 30 | 5 | 35 | 52 | 87 |
| 109 | 22D41A05A9 | 17 | 26 | 22 | 5 | 26 | 51 | 77 |
| 110 | 22D41A05B0 | 23 | 28 | 26 | 5 | 31 | 42 | 73 |
| 111 | 22D41A05B1 | 26 | 27 | 27 | 5 | 32 | 39 | 71 |
| 112 | 22D41A05B2 | 15 | 25 | 20 | 5 | 25 | 35 | 60 |
| 113 | 22D41A05B3 | 15 | 25 | 20 | 5 | 25 | 27 | 52 |
| 114 | 22D41A05B4 | 13 | 27 | 20 | 5 | 24 | 11 | 35 |
| 115 | 22D41A05B5 | 14 | 25 | 20 | 5 | 25 | 25 | 50 |
| 116 | 22D41A05B6 | 14 | 26 | 20 | 5 | 25 | 21 | 46 |
| 117 | 22D41A05B7 | 15 | 29 | 22 | 5 | 27 | 21 | 48 |
| 118 | 22D41A05B8 | 23 | 29 | 26 | 5 | 31 | 45 | 76 |
| 119 | 22D41A05B9 | 19 | 29 | 24 | 5 | 29 | 46 | 75 |
| 120 | 22D41A05C0 | 17 | 30 | 24 | 5 | 28 | 44 | 72 |
| 121 | 22D41A05C1 | 21 | 25 | 23 | 5 | 28 | 52 | 80 |
| 122 | 22D41A05C2 | 19 | 24 | 22 | 5 | 26 | 47 | 73 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 123 | 22D41A05C3 | 27 | 24 | 26 | 5 | 31 | 44 | 75 |
| 124 | 22D41A05C4 | 16 | 12 | 14 | 5 | 19 | 12 | 31 |
| 125 | 22D41A05C5 | 27 | 30 | 29 | 5 | 34 | 54 | 88 |
| 126 | 22D41A05C6 | 32 | 30 | 31 | 5 | 36 | 50 | 86 |
| 127 | 22D41A05C7 | 27 | 28 | 28 | 5 | 33 | 36 | 69 |
| 128 | 22D41A05C8 | 28 | 30 | 29 | 5 | 34 | 35 | 69 |
| 129 | 22D41A05C9 | 15 | 22 | 19 | 5 | 23 | 14 | 37 |
| 130 | 22D41A05D0 | 18 | 20 | 19 | 5 | 23 | 23 | 46 |
| 131 | 22D41A05D1 | 17 | 23 | 20 | 5 | 24 | 31 | 55 |
| 132 | 22D41A05D2 | 24 | 26 | 25 | 5 | 30 | 23 | 53 |
| 133 | 22D41A05D3 | 29 | 28 | 29 | 5 | 34 | 14 | 48 |
| 134 | 22D41A05D4 | 19 | 27 | 23 | 5 | 28 | 31 | 59 |
| 135 | 22D41A05D5 | 22 | 23 | 23 | 5 | 28 | 22 | 50 |
| 136 | 22D41A05D6 | 20 | 24 | 22 | 5 | 27 | 30 | 57 |
| 137 | 22D41A05D7 | 23 | 21 | 22 | 5 | 27 | 43 | 70 |
| 138 | 22D41A05D8 | 28 | 27 | 28 | 5 | 33 | 41 | 74 |
| 139 | 22D41A05D9 | 26 | 24 | 25 | 5 | 30 | 32 | 62 |
| 140 | 22D41A05E0 | 23 | 22 | 23 | 5 | 28 | 23 | 51 |
| 141 | 22D41A05E1 | 26 | 30 | 28 | 5 | 33 | 41 | 74 |
| 142 | 22D41A05E2 | 24 | 22 | 23 | 5 | 28 | 13 | 41 |
| 143 | 22D41A05E3 | 24 | 20 | 22 | 5 | 27 | 12 | 39 |
| 144 | 22D41A05E4 | 24 | 25 | 25 | 5 | 30 | 29 | 59 |
| 145 | 22D41A05E5 | 27 | 33 | 30 | 5 | 35 | 43 | 78 |
| 146 | 22D41A05E6 | 23 | 28 | 26 | 5 | 31 | 30 | 61 |
| 147 | 22D41A05E7 | 26 | 32 | 29 | 5 | 34 | 32 | 66 |
| 148 | 22D41A05E8 | 22 | 30 | 26 | 5 | 31 | 24 | 55 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 149 | 22D41A05E9 | 21 | 26 | 24 | 5 | 29 | 21 | 50 |
| 150 | 22D41A05F0 | 20 | 20 | 20 | 5 | 24 | 21 | 45 |
| 151 | 22D41A05F1 | 23 | 21 | 22 | 5 | 27 | 26 | 53 |
| 152 | 22D41A05F2 | 30 | 30 | 30 | 5 | 35 | 33 | 68 |
| 153 | 22D41A05F3 | 25 | 30 | 28 | 5 | 33 | 23 | 56 |
| 154 | 22D41A05F4 | 22 | 27 | 25 | 5 | 30 | 28 | 58 |
| 155 | 22D41A05F5 | 19 | 30 | 25 | 5 | 29 | 32 | 61 |
| 156 | 22D41A05F6 | 21 | 29 | 25 | 5 | 30 | 21 | 51 |
| 157 | 22D41A05F7 | 19 | 29 | 24 | 5 | 29 | 30 | 59 |
| 158 | 22D41A05F8 | 30 | 29 | 30 | 5 | 35 | 36 | 71 |
| 159 | 22D41A05F9 | 27 | 31 | 29 | 5 | 34 | 32 | 66 |
| 160 | 22D41A05G0 | 27 | 31 | 29 | 5 | 34 | 23 | 57 |
| 161 | 22D41A05G1 | 24 | 25 | 25 | 5 | 30 | 33 | 63 |
| 162 | 22D41A05G2 | 16 | 24 | 20 | 5 | 25 | 4  | 29 |
| 163 | 22D41A05G3 | 19 | 28 | 24 | 5 | 28 | 17 | 45 |
| 164 | 22D41A05G4 | 22 | 21 | 22 | 5 | 27 | 6  | 33 |
| 165 | 22D41A05G5 | 20 | 24 | 22 | 5 | 27 | 21 | 48 |
| 166 | 22D41A05G6 | 26 | 26 | 26 | 5 | 31 | 28 | 59 |
| 167 | 22D41A05G7 | 23 | 32 | 28 | 5 | 33 | 28 | 61 |
| 168 | 22D41A05G8 | 22 | 26 | 24 | 5 | 29 | 21 | 50 |
| 169 | 22D41A05G9 | 30 | 27 | 29 | 5 | 34 | 26 | 60 |
| 170 | 22D41A05H0 | 34 | 35 | 35 | 5 | 40 | 43 | 83 |
| 171 | 22D41A05H1 | 26 | 32 | 29 | 5 | 34 | 13 | 47 |
| 172 | 22D41A05H2 | 33 | 31 | 32 | 5 | 37 | 33 | 70 |
| 173 | 22D41A05H3 | 30 | 31 | 31 | 5 | 36 | 28 | 64 |
| 174 | 22D41A05H4 | 31 | 32 | 32 | 5 | 37 | 43 | 80 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 175 | 22D41A05H5 | 26 | 31 | 29 | 5 | 34 | 46 | 80 |
| 176 | 22D41A05H6 | 24 | 25 | 25 | 5 | 30 | 34 | 64 |
| 177 | 22D41A05H7 | 31 | 24 | 28 | 5 | 33 | 30 | 63 |
| 178 | 22D41A05H8 | 34 | 25 | 30 | 5 | 35 | 45 | 80 |
| 179 | 22D41A05H9 | 33 | 29 | 31 | 5 | 36 | 55 | 91 |
| 180 | 22D41A05J0 | 30 | 33 | 32 | 5 | 37 | 49 | 86 |
| 181 | 22D41A05J1 | 23 | 25 | 24 | 5 | 29 | 51 | 80 |
| 182 | 22D41A05J2 | 27 | 26 | 27 | 5 | 32 | 32 | 64 |
| 183 | 22D41A05J3 | 32 | 27 | 30 | 5 | 35 | 38 | 73 |
| 184 | 22D41A05J4 | 32 | 24 | 28 | 5 | 33 | 23 | 56 |
| 185 | 22D41A05J5 | 30 | 32 | 31 | 5 | 36 | 36 | 72 |
| 186 | 22D41A05J6 | 22 | 24 | 23 | 5 | 28 | 11 | 39 |
| 187 | 22D41A05J7 | 33 | 32 | 33 | 5 | 38 | 28 | 66 |
| 188 | 22D41A05J8 | 23 | 30 | 27 | 5 | 32 | 27 | 59 |
| 189 | 22D41A05J9 | 29 | 33 | 31 | 5 | 36 | 42 | 78 |
| 190 | 22D41A05K0 | 29 | 32 | 31 | 5 | 36 | 41 | 77 |
| 191 | 22D41A05K1 | 31 | 26 | 29 | 5 | 34 | 33 | 67 |
| 192 | 22D41A05K2 | 35 | 35 | 35 | 5 | 40 | 41 | 81 |
| 193 | 22D41A05K3 | 14 | 23 | 19 | 5 | 24 | 23 | 47 |
| 194 | 22D41A05K4 | 21 | 24 | 23 | 5 | 28 | 28 | 56 |
| 195 | 22D41A05K5 | 15 | 24 | 20 | 5 | 24 | 23 | 47 |
| 196 | 22D41A05K6 | 13 | 20 | 17 | 5 | 21 | 31 | 52 |
| 197 | 22D41A05K7 | 28 | 23 | 26 | 5 | 31 | 42 | 73 |
| 198 | 22D41A05K8 | 20 | 22 | 21 | 5 | 26 | 35 | 61 |
| 199 | 22D41A05K9 | 18 | 21 | 20 | 5 | 24 | 33 | 57 |
| 200 | 22D41A05L0 | 18 | 19 | 19 | 5 | 22 | 29 | 51 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 201 | 22D41A05L1 | 19 | 26 | 23 | 5 | 27 | 36 | 63 |
| 202 | 22D41A05L2 | 16 | 16 | 16 | 5 | 20 | 25 | 45 |
| 203 | 22D41A05L3 | 12 | 18 | 15 | 5 | 20 | 26 | 46 |
| 204 | 22D41A05L4 | 24 | 26 | 25 | 5 | 30 | 40 | 70 |
| 205 | 22D41A05L5 | 27 | 23 | 25 | 5 | 30 | 50 | 80 |
| 206 | 22D41A05L6 | 32 | 23 | 28 | 5 | 33 | 24 | 57 |
| 207 | 22D41A05L7 | 26 | 23 | 25 | 5 | 30 | 38 | 68 |
| 208 | 22D41A05L8 | 33 | 29 | 31 | 5 | 36 | 45 | 81 |
| 209 | 22D41A05L9 | 14 | 22 | 18 | 5 | 23 | 15 | 38 |
| 210 | 22D41A05M0 | 16 | 22 | 19 | 5 | 24 | 25 | 49 |
| 211 | 22D41A05M1 | 28 | 18 | 23 | 5 | 28 | 46 | 74 |
| 212 | 22D41A05M2 | 29 | 28 | 29 | 5 | 34 | 44 | 78 |
| 213 | 22D41A05M3 | 22 | 24 | 23 | 5 | 28 | 32 | 60 |
| 214 | 22D41A05M4 | 20 | 22 | 21 | 5 | 26 | 54 | 80 |
| 215 | 22D41A05M5 | 17 | 19 | 18 | 5 | 22 | 43 | 65 |
| 216 | 22D41A05M6 | 33 | 24 | 29 | 5 | 34 | 46 | 80 |
| 217 | 22D41A05M7 | 19 | 17 | 18 | 5 | 22 | 41 | 63 |
| 218 | 22D41A05M8 | 32 | 30 | 31 | 5 | 36 | 37 | 73 |
| 219 | 22D41A05M9 | 17 | 22 | 20 | 5 | 24 | 22 | 46 |
| 220 | 22D41A05N0 | 16 | 18 | 17 | 5 | 21 | 45 | 66 |
| 221 | 22D41A05N1 | 9  | 26 | 18 | 5 | 23 | 36 | 59 |
| 222 | 22D41A05N2 | 14 | 18 | 16 | 5 | 21 | 28 | 49 |
| 223 | 22D41A05N3 | 21 | 26 | 24 | 5 | 29 | 37 | 66 |
| 224 | 22D41A05N4 | 20 | 24 | 22 | 5 | 27 | 37 | 64 |
| 225 | 22D41A05N5 | 19 | 21 | 20 | 5 | 25 | 34 | 59 |
| 226 | 22D41A05N6 | 16 | 20 | 18 | 5 | 22 | 36 | 58 |

|     |            |    |    |    |   |    |    |    |
|-----|------------|----|----|----|---|----|----|----|
| 227 | 22D41A05N7 | 26 | 23 | 25 | 5 | 30 | 45 | 75 |
| 228 | 22D41A05N8 | 13 | 21 | 17 | 5 | 22 | 23 | 45 |
| 229 | 22D41A05N9 | 7  | 15 | 11 | 5 | 16 | 14 | 30 |
| 230 | 22D41A05P0 | 12 | 17 | 15 | 5 | 19 | 29 | 48 |
| 231 | 22D41A05P1 | 20 | 29 | 25 | 5 | 29 | 40 | 69 |
| 232 | 22D41A05P2 | 12 | 16 | 14 | 5 | 19 | 33 | 52 |
| 233 | 22D41A05P3 | 19 | 18 | 19 | 5 | 23 | 36 | 59 |
| 234 | 22D41A05P4 | 18 | 17 | 18 | 5 | 22 | 30 | 52 |
| 235 | 22D41A05P5 | 11 | 16 | 14 | 5 | 18 | 33 | 51 |
| 236 | 22D41A05P6 | 22 | 16 | 19 | 5 | 24 | 40 | 64 |
| 237 | 22D41A05P7 | 17 | 26 | 22 | 5 | 26 | 44 | 70 |
| 238 | 22D41A05P8 | 22 | 25 | 24 | 5 | 29 | 39 | 68 |
| 239 | 22D41A05P9 | 28 | 23 | 26 | 5 | 31 | 44 | 75 |
| 240 | 22D41A05Q0 | 19 | 23 | 21 | 5 | 26 | 34 | 60 |
| 241 | 22D41A05Q1 | 25 | 26 | 26 | 5 | 31 | 39 | 70 |
| 242 | 22D41A05Q2 | 32 | 30 | 31 | 5 | 36 | 54 | 90 |
| 243 | 22D41A05Q3 | 33 | 25 | 29 | 5 | 34 | 44 | 78 |
| 244 | 22D41A05Q4 | 14 | 24 | 19 | 5 | 24 | 34 | 58 |
| 245 | 22D41A05Q5 | 33 | 30 | 32 | 5 | 37 | 46 | 83 |
| 246 | 22D41A05Q6 | 33 | 31 | 32 | 5 | 37 | 50 | 87 |
| 247 | 22D41A05Q7 | 20 | 18 | 19 | 5 | 23 | 39 | 62 |
| 248 | 22D41A05Q8 | 21 | 20 | 21 | 5 | 25 | 44 | 69 |
| 249 | 22D41A05Q9 | 14 | 17 | 16 | 5 | 20 | 39 | 59 |
| 250 | 22D41A05R0 | 18 | 20 | 19 | 5 | 23 | 34 | 57 |
| 251 | 22D41A05R1 | 21 | 25 | 23 | 5 | 28 | 38 | 66 |
| 252 | 22D41A05R2 | 24 | 20 | 22 | 5 | 26 | 38 | 64 |

|                                                |            |            |     |     |   |     |     |     |
|------------------------------------------------|------------|------------|-----|-----|---|-----|-----|-----|
| 253                                            | 22D41A05R3 | 20         | 15  | 18  | 5 | 22  | 33  | 55  |
| 254                                            | 22D41A05R4 | 15         | 15  | 15  | 5 | 19  | 38  | 57  |
| 255                                            | 22D41A05R5 | 19         | 14  | 17  | 5 | 21  | 32  | 53  |
| 256                                            | 22D41A05R6 | 17         | 14  | 16  | 5 | 20  | 33  | 53  |
|                                                |            |            |     |     |   |     |     |     |
| <b>Students scored more than 60%marks</b>      |            | 122        | 182 | 156 |   | 187 | 107 | 128 |
| <b>Total no. of students Appeared for Exam</b> |            | <b>254</b> |     |     |   |     |     |     |
| <b>% of Marks</b>                              |            | 48         | 72  | 61  |   | 78  | 42  | 50  |

### Course Outcome Assessment

| CO  | MID I | MIDI | END |
|-----|-------|------|-----|
| CO1 | 3     |      | 2.1 |
| CO2 | 3     |      | 2.1 |
| CO3 | 3     |      | 2.1 |
| CO4 |       | 3    | 2.1 |
| CO5 |       | 3    | 2.1 |
| CO6 |       | 3    | 2.1 |

| CO  | Program Outcomes |     |      |      |     |     |     |     |     |      |      |      |      |      |      |
|-----|------------------|-----|------|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|
|     | PO1              | PO2 | PO3  | PO4  | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
| 1   | 2                | 2   | 1    | 1    | 2   | -   | -   | -   | -   | 1    | -    | -    | 2    | 2    | 1    |
| 2   | 3                | 2   | 2    | 1    | 3   | -   | -   | -   | -   | -    | 1    | -    | 2    | 2    | 2    |
| 3   | 2                | 1   | 1    | 1    | 3   | -   | -   | -   | -   | 1    | 1    | -    | 3    | 2    | 1    |
| 4   | 2                | 2   | 2    | 1    | 3   | -   | -   | -   | -   | 1    | -    | -    | 2    | 1    | 1    |
| 5   | 2                | 2   | 2    | 2    | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 1    | 1    |
| 6   | 2                | 2   | 2    | 1    | 3   | -   | -   | -   | -   | -    | -    | -    | 1    | 2    | 1    |
| W.A | 2.1<br>6         | 1.8 | 1.66 | 1.16 | 2.8 | -   | -   | -   | -   | 0.5  | 0.33 | -    | 2    | 1.66 | 1.16 |





























