Sri Indu Institute of Engineering and Technology (Autonomous)
(Formerly RVR Institute of Engineering & Technology )
An Autonomous Institution Under UGC
NAAC Accredited. Recognized Under 2(f) of UGC Act 1956
ESTD : 2007
EAMCET CODE: INDI
Approved by AICTE, New Delhi, & Affiliated to JNTUH, Hyderabad.
JNTUH CODE: X3

# COURSE FILE

**ON**

# PROGRAMMING FOR PROBLEM SOLVING LAB

## Course Code-CS107ES

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

**Prepared by**
**U.NARESH**
**Asst. Professor**

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

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

| | |
|---|---|
| **Name of the Physical laboratory:** | PROGRAMING FOR PROBLEM SOLVINGLAB |
| **Course Code:** | CS107ES |
| **Room No:** | D007& XII |
| **Name of the lab incharge** | G.KALYANI |
| **Name of the faculty incharge** | U.NARESH |

## Index of Lab File

# INSTITUTE VISION & MISSION

**Vision:**

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

**Mission:**

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

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## PROGRAMME OUTCOMES

**PO1: Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

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

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

**PO4: Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5: Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6: The Engineer & Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7: Environment & Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledgeof, and need for sustainable development.

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

**PO9: Individual & Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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

**PO11: Project Management & Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-Long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

## B.Tech in CSE - CYBER SECURITY

## COURSE STRUCTURE

## I YEAR SYLLABUS (BR22Regulations)

Applicable from Academic Year: 2022-23 Batch

**I Year I Semester**

| S. No. | Course Code | Course Title | L | T | P | Credits |
|---|---|---|---|---|---|---|
| 1. | MA101BS | Matrices sand Calculus | 3 | 1 | 0 | 4 |
| 2. | CH103BS | Engineering Chemistry | 3 | 1 | 0 | 4 |
| 3. | CS103ES | Programming for Problem Solving | 3 | 0 | 0 | 3 |
| 4. | EE101ES | Basic Electrical Engineering | 2 | 0 | 0 | 2 |
| 5. | ME101ES | Computer Aided Engineering Graphics | 1 | 0 | 4 | 3 |
| 6. | CS106ES | Elements of Computer Science & Engineering | 0 | 0 | 2 | 1 |
| 7. | CH106BS | Engineering Chemistry Laboratory | 0 | 0 | 2 | 1 |
| 8 | CS107ES | Programming for Problem Solving Laboratory | 0 | 0 | 2 | 1 |
| 9. | EE102ES | Basic Electrical Engineering Laboratory | | | | |
| | | Induction Program | | | | |
| | | **Total** | **12** | **2** | **12** | **20** |

**I Year II Semester**

| S. No. | Course Code | Course | L | T | P | Credits |
|---|---|---|---|---|---|---|
| 1. | MA201BS | Ordinary Differential Equations and Vector Calculus | 3 | 1 | 0 | 4 |
| 2. | AP202BS | Applied Physics | 3 | 1 | 0 | 4 |
| 3. | ME202ES | Engineering Workshop | 0 | 1 | 3 | 2.5 |
| 4. | EN204HS | English for Skill Enhancement | 2 | 0 | 0 | 2 |
| 5. | EC201ES | Electronic Devices and Circuits | 2 | 0 | 0 | 2 |
| 6. | AP205BS | Applied Physics Laboratory | 0 | 0 | 3 | 1.5 |
| 7. | CS201ES | Python Programming Laboratory | 0 | 1 | 2 | 2 |
| 8. | EN207HS | English Language and Communication Skills Laboratory | 0 | 0 | 2 | 1 |
| 9. | CS203ES | IT Workshop | 0 | 0 | 2 | 1 |
| 10. | *MC201ES | Environmental Science | 3 | 0 | 0 | 0 |
| | | **Total** | **13** | **4** | **12** | **20** |

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

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**KhalsaIbrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana – 501 510Website: https://siiet.ac.in/**


## PROGRAMMING FOR PROBLEM SOLVING LABORATORY
**(Course Code:CS107ES)**

**B.Tech I Year I Sem.**

| L | T | PC |
|---|---|---|
| 0 | 0 | 21 |

**Prerequisites**: Programming for Problem Solving

**Course Objectives:**

The students will learn the following:

• To work with an IDE to create, edit, compile, run and debug programs
• To analyze the various steps in program development.
• To develop programs to solve basic problems by understanding basic concepts in C like operators, control statements etc.
• To develop modular, reusable and readable C Programs using the concepts like functions, arrays etc.
• To Write programs using the Dynamic Memory Allocation concept.
• To create, read from and write to text and binary files

**Course Outcomes:** The candidate is expected to be able to:

• formulate the algorithms for simple problems
• translate given algorithms to a working and correct program
• correct syntax errors as reported by the compilers
• identify and correct logical errors encountered during execution
• represent and manipulate data with arrays, strings and structures
• use pointers of different types
• create, read and write to and from simple text and binary files
• modularize the code with functions so that they can be reused

**Practice sessions:**

a. Write a simple program that prints the results of all the operators available in C (includingpre/post increment , bitwise and/or/not , etc.). Read required operand values from standard input.

b. Write a simple program that converts one given data type to another using auto conversionand casting. Take the values from standard input.

a. Write a program for finding the max and min from the three numbers.

b. Write the program for the simple, compound interest.

c. Write a program that declares Class awarded for a given percentage of marks, where mark <40%= Failed, 40% to <60% = Second class, 60% to <70%=First class, >= 70% = Distinction.Read percentage from standard input.

d. Write a program that prints a multiplication table for a given number and the number of rows in the table. For example, for a number 5 and rows = 3, the output should be:

5 x 1 = 5

5 x 2 = 10
5 x 3 = 15
e. Write a program that shows the binary equivalent of a given positive numberbetween 0 to 255.
Expression Evaluation:
a. A building has 10 floors with a floor height of 3 meters each. A ball is dropped from the top ofthe building. Find the time taken by the ball to reach each floor. (Use the formula s =
ut +(1/2) at^2 where u and a are the initial velocity in m/sec (= 0) and acceleration in m/sec^2 (=9.8 m/s^2)).
b. Write a C program, which takes two integer operands and one operator from the user, performsthe operation and then prints the result. (Consider the operators +,-,*, /, % and use Switch Statement)
c. Write a program that finds if a given number is a prime number
d. Write a C program to find the sum of individual digits of a positive integer and test givennumber is palindrome.
e. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write aC program to generate the first n terms of the sequence.
f. Write a C program to generate all the prime numbers between 1 and n, where n is a valuesupplied by the user.
g. Write a C program to find the roots of a Quadratic equation.
h. Write a C program to calculate the following, where x is a fractional value.1-x/2 +x^2/4-x^3/6
i. Write a C program to read in two numbers, x and n, and then compute the sum of this geometric progression: 1+x+x^2+x^3+… .....+x^n. For example: if n is 3 and x is 5, then the program computes 1+5+25+125.

**Arrays, Pointers and Functions:**

a. Write a C program to find the minimum, maximum and average in an array of integers.
b. Write a function to compute mean, variance, Standard Deviation, sorting of n elementsin a single dimension array.
c. Write a C program that uses functions to perform the following:
i. Addition of Two Matrices
ii. Multiplication of Two Matrices
d. Transpose of a matrix with memory dynamically allocated for the new matrix as rowand column counts may not be the same.
e. Write C programs that use both recursive and non-recursive functionsTo find the factorial of a given integer.
f. To find the GCD (greatest common divisor) of two given integers.
g. To find x^n
i. Write a program for reading elements using a pointer into an array and display thevalues using the array.
j. Write a program for display values reverse order from an array using a pointer.
k. Write a program through a pointer variable to sum of n elements from an array.

**Files:**

a. Write a C program to display the contents of a file to standard output device.

b. Write a C program which copies one file to another, replacing all lowercase characterswith their uppercase equivalents.

c. Write a C program to count the number of times a character occurs in a text file. Thefile name and the character are supplied as command line arguments.

d. Write a C program that does the following:

It should first create a binary file and store 10 integers, where the file name and 10 values are given in the command line. (hint: convert the strings using a to i function)Now the program asks for an index and a value from the user and the value at that index should be changed to the new value in the file. (hint: use fseek function)

The program should then read all 10 values and print them back.

e. Write a C program to merge two files into a third file (i.e., the contents of the first filefollowed by those of the second are put in the third file).

**Strings:**

a. Write a C program to convert a Roman numeral ranging from I to L to its decimalequivalent.

b. Write a C program that converts a number ranging from 1 to 50 to Roman equivalent

c. Write a C program that uses functions to perform the following operations:

d. To insert a sub-string into a given main string from a given position.

e. To delete n Characters from a given position in a given string.

f. Write a C program to determine if the given string is a palindrome or not (Spelled samein both directions with or without a meaning like madam, civic, noon, abcba, etc.)

g. Write a C program that displays the position of a character ch in the string S or – 1 if Sdoesn‘t contain ch.

h. Write a C program to count the lines, words and characters in a given text.Miscellaneous:

a. Write a menu driven C program that allows a user to enter n numbers and then choose betweenfinding the smallest, largest, sum, or average. The menu and all the choices are to be functions. Use a switch statement to determine what action to take. Display an error message if an invalid choice is entered.

b. Write a C program to construct a pyramid of numbers as follows:

**Sorting and Searching:**

```
1       *       1       1       *
1 2     * *     2 3     2 2     * *
1 2 3   * * *   4 5 6   3 3 3   * * *
                        4 4 4 4 * *
                                *
```

a. Write a C program that uses non recursive function to search for a Key value in a givenlist of integers using linear search method.
b. Write a C program that uses non recursive function to search for a Key value in a givensorted list of integers using binary search method.
c. Write a C program that implements the Bubble sort method to sort a given list ofintegers in ascending order.
d. Write a C program that sorts the given array of integers using selection sort indescending order
e. Write a C program that sorts the given array of integers using insertion sort in ascendingorder
f. Write a C program that sorts a given array of names.

**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, (3rdEdition)

**REFERENCE BOOKS:**

1. Brian W. Kernighan and Dennis M. Ritchie, The C Programming Language, PHI
2. E. Balagurusamy, Computer fundamentals and C, 2nd Edition, McGraw-Hill
3. YashavantKanetkar, 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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## COURSE OUTCOMES

**Course Name: Programming for Problem Solving lab(C118)**

At the End of the course, student will be able to:

| CO No | DESCRIPTION |
|---|---|
| C118.1 | Solve the Problems by using Operators and type casting. (Evaluation). |
| C118.2 | Write the programs based on Branching and Looping statements. (Knowledge). |
| C118.3 | Illustrate the Problems by using the recursion and Functions. (Comprehension**)**. |
| C118.4 | Analyze the programs based on Derived Data type.(Analysis). |
| C118.5 | Develop the programs using Files (Synthesis**)**. |
| C118.6 | Solve the Problems by using the Searching and Sorting Technique.(Evaluation) |

## Cos and POs & PSOs Mapping

| CO/PO /PSO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C118.1 | 2 | 2 | 3 | - | 1 | - | - | - | - | - | - | 2 | 2 | 2 |
| C118.2 | - | 2 | 3 | 1 | 2 | - | - | - | 2 | - | - | - | 3 | 3 |
| C118.3 | 1 | 2 | 3 | - | 2 | - | - | - | - | - | - | - | 2 | - |
| C118.4 | - | 2 | 3 | - | 1 | - | - | - | - | - | 2 | - | - | - |
| C118.5 | 3 | 2 | 2 | - | - | - | - | - | - | - | 2 | - | - | - |
| C118.6 | 2 | 2 | 2 | 2 | 1 | - | - | - | - | - | - | - | 3 | - |
| **Avg** | **2** | **2** | **2.6** | **1.5** | **1.4** | | | | **2** | | **2** | **2** | **2.5** | **2.5** |

3-High 2-Medium 1-Low

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## PROGRAMMING FOR PROBLEM SOLVING LAB

## LIST OF PROGRAMS AND THEIR CO, PO, PSO MAPPING

| Week no. | Name of the program | CO | PO/PSO | |
|---|---|---|---|---|
| | | | PO | PSO |
| 1 | a.Write a simple program that prints the results of all the operators available in C (including pre/post increment , bitwise and/or/not , etc.). Read required operand values from standard input.<br>b. Write a simple program that converts one given data type to another using auto conversionand casting. Take the values from standard input. | C118.1 | PO1, PO2, PO3, PO5, PO12 | PSO1<br>PSO2 |
| 2 | a. Write a program for fiend the max and min from the threenumbers.<br>b. Write the program for the simple, compound interest.<br>c. Write program that declares Class awarded for a given percentage of marks, where mark <40%= Failed, 40% to <60% =Second class, 60% to <70%=First class, >= 70% = Distinction. Read percentage from standard input.<br>d. Write a program that prints a multiplication table for a givennumber and the number of rows in the table. For example, for anumber 5 and rows = 3, the<br>e. 5 x 1 = 5<br>f. 5 x 2 = 10<br>g. 5 x 3 = 15<br>h. Write a program that shows the binary equivalent of a givenpositive number between 0 to 255. | C118.2 | PO2, PO3,PO4, PO5, PO9 | PSO1<br>PSO2 |

| | | | | |
|---|---|---|---|---|
| 3 | a. A building has 10 floors with a floor height of 3 meters each.A ball is dropped from the top of the building. Find the time taken by the ball to reach each floor. (Use the formula s = ut+(1/2)at^2 where u and a are the initial velocity in m/sec (= 0)and acceleration in m/sec^2 (= 9.8 m/s^2)).<br>b. Write a C program, which takes two integer operands and one operator from the user, performs the operation and then prints the result. (Consider the operators +,-,*, /, % and use Switch Statement)<br>c. Write a program that finds if a given number is a primenumber<br>d. Write a C program to find the sum of individual digits of apositive integer and test given number is palindrome.<br>e. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Writea C program to generate the first n terms of the sequence.<br>f. Write a C program to generate all the prime numbers between1 and n, where n is a value supplied by the user.<br>g. Write a C program to find the roots of a Quadratic equation.<br>h. Write a C program to calculate the following, where x is afractional value.<br>i. 1-x/2 +x^2/4-x^3/6<br>j. Write a C program to read in two numbers, x and n, and then compute the sum of this geometric progression: 1+x+x^2+x^3+ +x^n. For example: if n is 3 and x is 5, then the program computes 1+5+25+125. | C118.2 | PO2, PO3, PO4,PO5, PO9 | PSO1<br>PSO2 |
| 4 | | C118.3 | PO1, PO2, PO3,PO5 | PSO1 |

| | | | | |
|---|---|---|---|---|
| | a. Write a C program to find the minimum, maximum andaverage in an array of integers.<br>b. Write a functions to compute mean, variance, Standard Deviation, sorting of n elements in single dimension array.<br>c. Write a C program that uses functions to perform thefollowing:<br>d. Addition of Two Matrices<br>e. ii. Multiplication of Two Matrices<br>f. iii. Transpose of a matrix with memory dynamically allocatedfor the new matrix as row and column counts may not be same.<br>g. Write C programs that use both recursive and non-recursivefunctions<br>h. To find the factorial of a given integer.<br>i. ii. To find the GCD (greatest common divisor) of two givenintegers.<br>j. iii. To find x^n<br>k. Write a program for reading elements using pointer into array and display the values using array.<br>l. Write a program for display values reverse order from arrayusing pointer.<br>m. Write a program through pointer variable to sum of n elements from array. | C118.4 | PO2,PO3,PO5,<br>PO11 | |
| 5 | a. Write a C program to display the contents of a file to standard output device.<br>b. Write a C program which copies one file to another, replacing all lowercase characters with their uppercase equivalents.<br>c. Write a C program to count the number of times a character occurs in a text file. The file name and the character are supplied as command line arguments.<br>d. Write a C program that does the following:<br>It should first create a binary file and store 10 integers, where the file name and 10 values are given in the | C118.5<br><br>C118.4 | PO1, PO2, PO3, PO11<br><br>PO2,PO3,PO5,<br>PO11 | |

| | | | | |
|---|---|---|---|---|
| | command line. (hint: convert the strings using atoi function) Now the program asks foran index and a value from the user and the value at that index should be changed to the new value in the file. (hint: use fseek function) The program should then read all 10 values and print them back.<br>e. Write a C program to merge two files into a third file (i.e., the contents of the firs t file followed by those of the second are put in the third file). | | | |
| 6 | a. Write a C program to convert a Roman numeral ranging from Ito L to its decimal equivalent.<br>b. Write a C program that converts a number ranging from 1 to50 to Roman equivalent<br>c. Write a C program that uses functions to perform thefollowing operations:<br>d. To insert a sub-string in to a given main string from a givenposition.<br>e. ii. To delete n Characters from a given position in a givenstring.<br>Write a C program to determine if the given string is a palindrome or not (Spelled same in both directions with or<br>without a meaning like madam, civic, noon, abcba, etc.)<br>g. Write a C program that displays the position of a character chin the string S or – 1 if S doesn‘t contain ch.<br>f. h. Write a C program to count the lines, words and characters ina given text. | C118.3<br><br>C118.4 | PO1, PO2, PO3, PO5<br><br>PO2,PO3,PO5,<br><br>PO11 | PSO1 |
| 7 | a. Write a menu driven C program that allows a user to enter n numbers and then choose between finding the smallest, largest, sum, or average. The menu and all the choices are to be functions. Use a switch statement to determine what action to take. Display an error message if an invalid choice is entered.<br>b. Write a C program to construct a pyramid of numbers as follows: | C118.3 | PO1, PO2, PO3, PO5 | PSO1 |

| | | | | |
|---|---|---|---|---|
| | 1 * 1 1 *<br>12 ** 23 22 **<br>123 *** 456 333 ***<br>4444 **<br>*<br>* | | | |
| 8 | a. Write a C program that uses non recursive function to searchfor a Key value in a given<br>b. list of integers using linear search method.<br>c. Write a C program that uses non recursive function to searchfor a Key value in a given<br>d. sorted list of integers using binary search method.<br>e. Write a C program that implements the Bubble sort method tosort a given list of<br>f. integers in ascending order.<br>g. Write a C program that sorts the given array of integers usingselection sort in descending order<br>h. Write a C program that sorts the given array of integers usinginsertion sort in ascending order<br>i. Write a C program that sorts a given array of names | C118.6 | PO1, PO2, PO3, PO4,PO5 | PSO1 |

| **ADDITIONAL PROGRAMS** | | | | |
|---|---|---|---|---|
| 1 | Write A C Program To Check Armstrong Number | C118.2 | PO2, PO3, PO4, PO5, PO9 | PSO1<br>PSO2 |
| **2** | To reverse A Write A C Program Given Number | C118.2 | PO2, PO3, PO4, PO5, PO9 | PSO1<br>PSO2 |
| **3** | Write A C Program To Arrange The Numbers<br>In Ascending Order Using Quick Sort | C118.6 | PO1, PO2,<br>PO3, PO4,PO5 | PSO1 |

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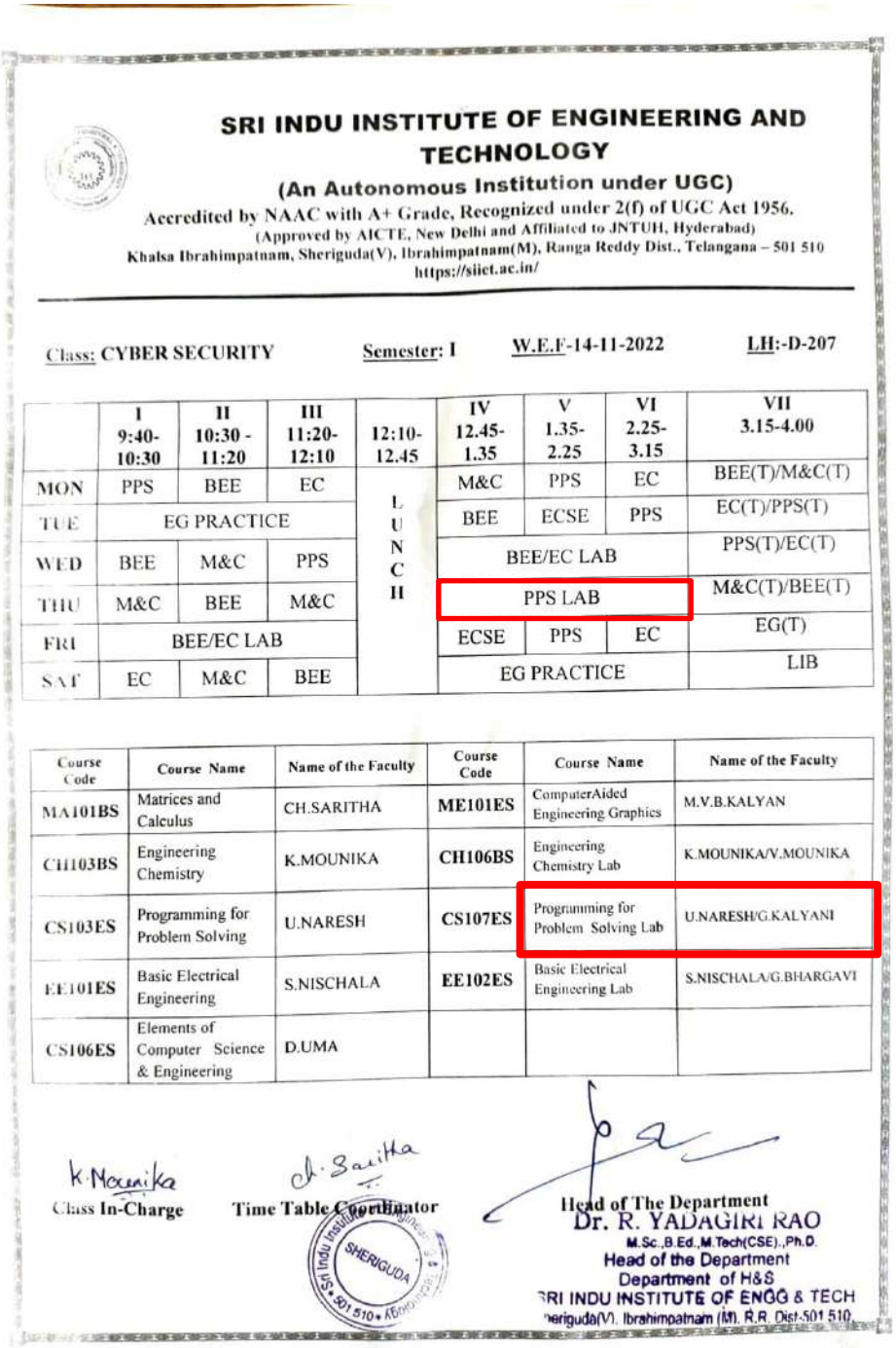
**Class: CYBER SECURITY** **Semester: I** **W.E.F-14-11-2022** **LH:-D-107**



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Class: CYBER SECURITY Semester: I W.E.F-14-11-2022 LH:-D-207

| | I 9:40-10:30 | II 10:30 - 11:20 | III 11:20-12:10 | 12:10-12.45 | IV 12.45-1.35 | V 1.35-2.25 | VI 2.25-3.15 | VII 3.15-4.00 |
|---|---|---|---|---|---|---|---|---|
| MON | PPS | BEE | EC | LUNCH | M&C | PPS | EC | BEE(T)/M&C(T) |
| TUE | EG PRACTICE | | | | BEE | ECSE | PPS | EC(T)/PPS(T) |
| WED | BEE | M&C | PPS | | BEE/EC LAB | | | PPS(T)/EC(T) |
| THU | M&C | BEE | M&C | | PPS LAB | | | M&C(T)/BEE(T) |
| FRI | BEE/EC LAB | | | | ECSE | PPS | EC | EG(T) |
| SAT | EC | M&C | BEE | | EG PRACTICE | | | LIB |

| Course Code | Course Name | Name of the Faculty | Course Code | Course Name | Name of the Faculty |
|---|---|---|---|---|---|
| MA101BS | Matrices and Calculus | CH.SARITHA | ME101ES | ComputerAided Engineering Graphics | M.V.B.KALYAN |
| CH103BS | Engineering Chemistry | K.MOUNIKA | CH106BS | Engineering Chemistry Lab | K.MOUNIKA/V.MOUNIKA |
| CS103ES | Programming for Problem Solving | U.NARESH | CS107ES | Programming for Problem Solving Lab | U.NARESH/G.KALYANI |
| EE101ES | Basic Electrical Engineering | S.NISCHALA | EE102ES | Basic Electrical Engineering Lab | S.NISCHALA/G.BHARGAVI |
| CS106ES | Elements of Computer Science & Engineering | D.UMA | | | |

K.Mounika
Class In-Charge

Ch. Saritha
Time Table Coordinator

Head of The Department
Dr. R. YADAGIRI RAO
M.Sc.,B.Ed.,M.Tech(CSE).,Ph.D.
Head of the Department
Department of H&S
SRI INDU INSTITUTE OF ENGG & TECH
Sheriguda(V), Ibrahimpatnam (M), R.R. Dist-501 510

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

**UGC Autonomous Institution, Accredited by NAAC with A+ Grade**

Recognizedunder2(f)of UGC Act1956.

(Approved by AICTE, NewDelhi and Affiliated to JNTUH, Hyderabad)

Sheriguda(V),Ibrahimpatnam(M),R.RDist.,Telangana-501510

**X3**

**BR22**

**Lab External Question paper**

Yea r& Semester: I-I Branch: CYBER SECURITY

Subject Name: Programming For Problem Solving Lab Faculty Name:

**SET-1**

1. Write a simple program that prints the results of all the operators available in C (including pre/ post increment, bitwise and/or/not, etc.). Read required operand values from standard input.

2. Write the program for the simple, compound interest.

3. Write a C program to generate all the prime numbers between 1 and n, where n is a value supplied by the user.

4. Transpose of a matrix with memory dynamically allocated for the new matrix as row and column counts may not be same.

5. Write a program for display values reverse order from array using pointer.

6. Write a C program to merge two files into a third file (i.e., the contents of the firs t file followed by those of the second are put in the third file).

7. Write a C program to construct a pyramid of numbers as follows:

```
   1
  2 2
 3 3 3
4 4 4 4
```

8. Write a C program that implements the Bubble sort method to sort a given list of integers in ascending order.

**SET-2**

1. Write a simple program that converts one given data type to another using auto conversion and casting. Take the values form standard input.

2. Write program that declares Class awarded for a given percentage of marks, where mark <40%= Failed, 40% to <60% = Second class, 60% to <70%=First class, >= 70% = Distinction. Read percentage from standard input.

3. Write a C program, which takes two integer operands and one operator from the user, performs the operation and then prints the result. (Consider the operators +,-,*, /, % and use Switch Statement)

4. Write C programs that use both recursive and non-recursive functions

5. Write a program through pointer variable to sum of n elements from array.

6. Write a menu driven C program that allows a user to enter n numbers and then choose between finding the smallest, largest, sum, or average. The menu and all the choices, are to be functions. Use a switch statement to determine what action to take. Display an error message if an invalid choice is entered.

7. write a C program to construct a pyramid of numbers as follows:

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

8.Write a C program that sorts the given array of integers using selection sort in descending order.

**SET-3**

1. Write a program for fiend the max and min from the three numbers.

2. Write a program that prints a multiplication table for a given number and the number of rows in the table. For example, for a number 5 and rows = 3, the output should be:

5 x 1 = 5

5 x 2 = 10

5 x 3 = 15

3. Write a C program to find the roots of a Quadratic equation.

4. Write C programs that use both recursive and non-recursive functions to find the GCD (greatest common divisor) of two given integers.

5. Write a C program to display the contents of a file to standard output device.

6. Write a C program to construct a pyramid of numbers as follows:

```
1
1 2
1 2 3
```

7. Write a C program that uses non recursive function to search for a Key value in a given list of integers using linear search method.

8. Write a C program that sorts the given array of integers using insertion sort in ascending order.

**SET-4**

1. A building has 10 floors with a floor height of 3 meters each. A ball is dropped from the top of the building. Find the time taken by the ball to reach each floor. (Use the formula s = ut +(1/2) at^2 where u and a are the initial velocity in m/sec (= 0) and acceleration in m/sec^2 (= 9.8 m/s^2)).

2.Write a C program to find the sum of individual digits of a positive integer and test given number is palindrome.

3.Write a C program to find the minimum, maximum and average in an array of integers.

4. Write a C program that uses functions to perform the Multiplication of Two Matrices

5. Write a C program which copies one file to another, replacing all lowercase characters with their uppercase equivalents

6. Write a C program to construct a pyramid of numbers as follows:

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

7. Write a C program that uses non recursive function to search for a Key value in a given sorted list of integers using binary search method.

8.Write a C program that sorts a given array of names

**SET-5**

1. Write a program that finds if a given number is a prime number.

2. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a C program to generate the first n terms of the sequence

3. Write a C program that uses functions to perform the Addition of Two Matrices

4. Write C programs that use both recursive and non-recursive functions to find x^n.

5. Write a C program to count the number of times a character occurs in a text file. The file name and the character are supplied as command line arguments.

6. Write a C program to construct a pyramid of numbers as follows:

```
1
2 3
4 5 6
```

7.Write a C program that implements the Bubble sort method to sort a given list of integers in ascending order.

8. Write C programs that use both recursive and non-recursive functions to find the GCD (greatest common divisor) of two given integers.

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

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KhalsaIbrahimpatnam,Sheriguda(V),Ibrahimpatnam(M),RangaReddyDist.,Telangana–501510
https://siiet.ac.in/

## PPS Lab External Time Table

## Examination Branch

**A.Y.: 2022-23** **SEM-I**

| DATE | Day | Branch | Session | HT. No | Total No of Students |
|---|---|---|---|---|---|
| 10-3-2023 | FRIDAY | AI&DS | FN | **22X31A7201TO22X31A7264** | 64 |
| 10-3-2023 | FRIDAY | IOT | AN | **22X31A6901TO22X31A6963** | 63 |
| 11-3-2023 | SATURDAY | AI&ML-A | FN | **22X31A6601TO22X31A6650** | 50 |
| 11-3-2023 | SATURDAY | CS | AN | **22X31A6201TO22X31A6262** | 62 |
| 13-3-2023 | MONDAY | DS | FN | **22X31A6701TO22X31A6764** | 64 |
| 13-3-2023 | MONDAY | AI&ML-B | AN | **22X31A6251TO22X31A6297** | 47 |
| 14-3-2023 | TUESDAY | CSE-A | FN | **22X31A0501TO22X31A0565** | 65 |
| 14-3-2023 | TUESDAY | CSE-C | AN | **22X31A05D1TO22X31A05J1** | 62 |
| 15-3-2023 | WEDNESDAY | CSE-B | FN | **22X31A0566TO22X31A05D0** | 61 |
| 15-3-2023 | WEDNESDAY | ECE & CIVIL | AN | **22X31A0401To22X31A0464**<br>**22X31A6101TO22X31A6103** | 67 |

Head of the Department
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R.R. Dist. Telangana-501 510.

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https://siiet.ac.in/

## PPS Lab External Time Table with Examiners

| DATE | Day | Branch | Session | HT. No | Total No of Students | Internal Examiner | External Examiner |
|---|---|---|---|---|---|---|---|
| 10-3-2023 | FRIDAY | AI&DS | FN | **22X31A7201TO22X31A7264** | 64 | G.BHARGAVI 9985427392 Bhargavi1016@gmail.com | Mr.Srinivas Rao 8977377795 |
| 10-3-2023 | FRIDAY | IOT | AN | **22X31A6901TO22X31A6963** | 63 | G.BHARGAVI 9985427392 Bhargavi1016@gmail.com | Mr.B.S. Acharya 9676153956 |
| 11-3-2023 | SATURDAY | AI&ML-A | FN | **22X31A6601TO22X31A6650** | 50 | T.ARUNA 7207914564 arunasrinivas@gmail.com | Mr.R.Aadil Ahmed 7780808860 |
| 11-3-2023 | SATURDAY | CS | AN | **22X31A6201TO22X31A6262** | 62 | B.S.SWAPNA SHANTHI 9985528788 Swapnashanthi45@gmail.com | Ms.Vishalakshi 7032146627 |
| 13-3-2023 | MONDAY | DS | FN | **22X31A6701TO 22X31A6764** | 64 | B.S.SWAPNA SHANTHI 9985528788 Swapnashanthi45@gmail.com | Dr A Ravi |
| 13-3-2023 | MONDAY | AI&ML-B | AN | **22X31A6251TO22X31A6297** | 47 | T.ARUNA 7207914564 arunasrinivas@gmail.com | Dr A Ravi |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14-3-2023 | TUESDAY | CSE-A | F N | **22X31A05 01TO22X 31A0565** | 65 | S.KIRAN 9704838922 kiransaggurthicfc@gmail.com | Mr.CH.Ravindra 9666205205 |
| 14-3-2023 | TUESDAY | CSE-C | A N | **22X31A05 D1TO22X 31A05J1** | 61 | K.MOUNIKA 9052112672 k.mounika1507@gmail.com | Ms.K.Sreedevi 8374652679 |
| 15-3-2023 | WEDNESDAY | CSE-B | F N | **22X31A05 66TO22X 31A05D0** | 65 | S.KIRAN 9704838922 kiransaggurthicfc@gmail.com | Ms.R.Shashikala 9618559938 |
| 15-3-2023 | WEDNESDAY | ECE & CIVIL | AN | **22X31A04 01To22X3 1A0464 22X31A61 01TO22X 31A6103** | 62 | K.MOUNIKA 9052112672 k.mounika1507@gmail.com | Mr.B.Lalu |

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Sheriguda(V),Ibrahimpatnam(M),R.RDist.,Telangana-501510

**X3**

**BR22**

Yea r& Semester: I-I

Branch: CYBER SECURITY

## LAB OCCUPANCY CHART

**PROGRAMMING FOR PROBLEM SOLVING LAB**

| | I<br>9:40-<br>10:30 | II<br>10:30-<br>11:20 | III<br>11:20-<br>12:10 | 12:10-<br>12.45 | IV<br>12.45-<br>1.35 | V<br>1.35-<br>2.25 | V<br>I2.25-<br>3.15 | VII<br>3.15-<br>4.00 |
|---|---|---|---|---|---|---|---|---|
| **MON** | I BTECH I SEM CSE-A | | | **L U N C H** | I BTECH I SEM CSE-C | | | |
| **TUE** | I BTECH I SEM DATA SCIENCE -A | | | | I BTECH I SEM ECE & CIVIL | | | |
| **WED** | I BTECH I SEM AI&ML-B | | | | I BTECH I SEM CSE-B | | | |
| **THU** | I BTECH I SEM AIDS | | | | I BTECH I SEM DS-B & CS | | | |
| **FRI** | | | | | I BTECH I SEM AI&ML-A | | | |
| **SAT** | | | | | I BTECH I SEM IOT | | | |

Head of the Department
Department of H&S
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**KhalsaIbrahimpatnam, Sheriguda (V), Ibrahimpatnam (M), Ranga Reddy Dist., Telangana – 501 510**
**Website:https://siiet.ac.in/**


## PROGRAMMING FOR PROBLEM SOLVING LAB

### Do's

1. Come with completed observation and record.
2. Remove your shoes or wear foot socks before you enter the lab.
3. Always keep quiet. Be considerate to other lab users.
4. Report any problems with the computer to the person in charge.
5. Shut down the computer properly.
6. Wear ID card before entering into the lab.
7. Read and understand how to carry out an activity thoroughly before coming to the laboratory.
8. write Intime, Outtime and system details in the login register

### Don'ts

1. Do not touch any part of the computer with wet hands.
2. Do not change system settings.
3. Do not hit the keys on the computer too hard.
4. Don't damage, remove, or disconnect any labels, parts, cables or equipment.
5. Do not install or download any software or modify or delete any system files on any lab computers.
6. Do not disturb your neighbouring students. They may be busy in completing tasks.
7. Do not remove anything from the computer laboratory without permission.
8. Do not use pen drives.

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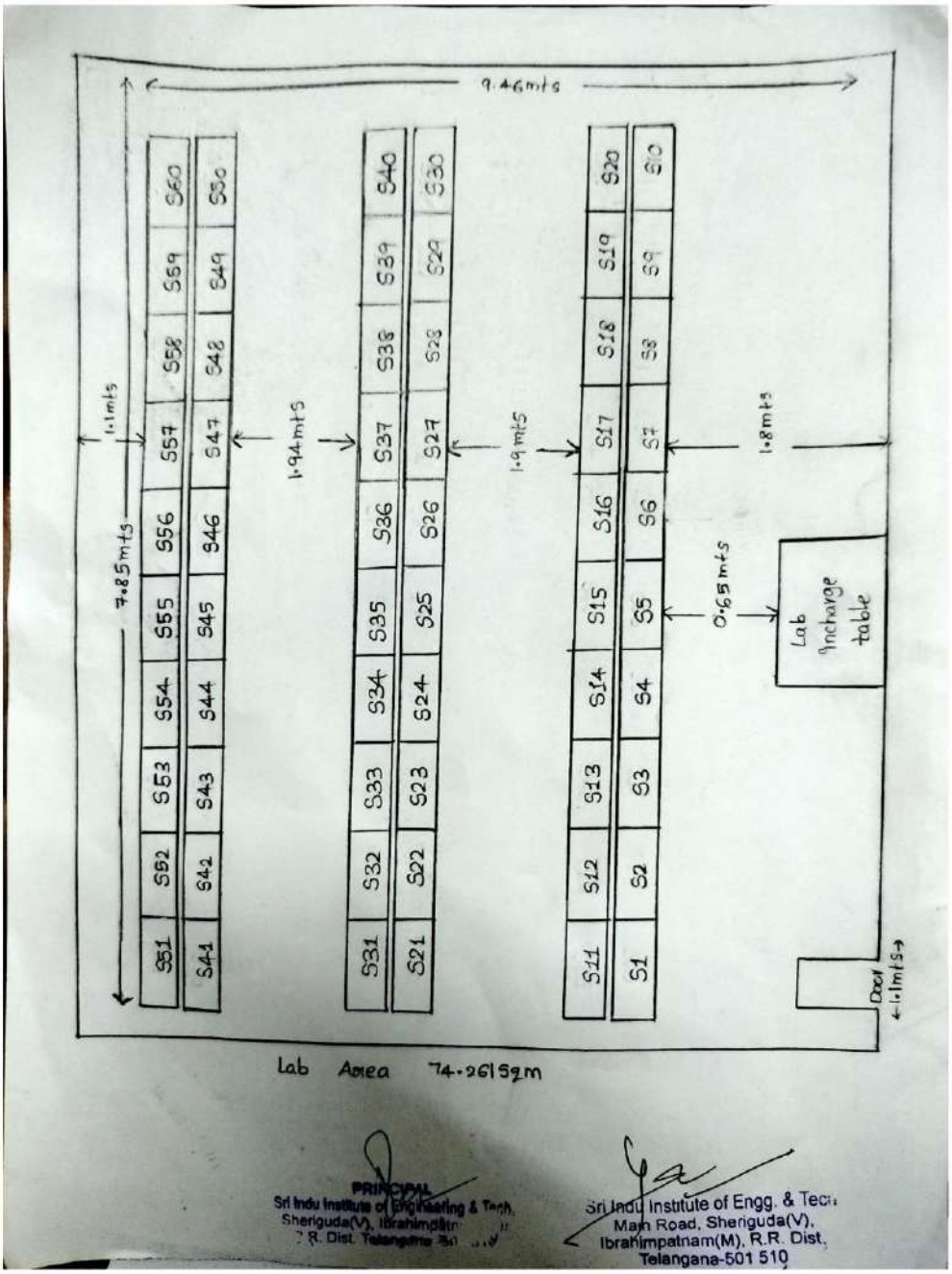
## PROGRAMMING FOR PROBLEM SOLVING LAB

### PHYSICAL LAB-1 FLOOR PLAN

**ROOM NO: D-007** **BLOCK: D** **GROUND FLOOR**



**Lab manual link**

https://drive.google.com/file/d/1YgOYoYUNNAn5g2eoi2mgYpiajzs393yv/view?usp=sharing

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of **Humanities and Sciences**

| Course Outcome Attainment (InternalExamination-2) | | | | | |
|---|---|---|---|---|---|
| Name of the faculty | U.NARESH | | | Academic Year:2022-2023 | |
| Branch & Section: | CYBER SECURITY | | | Examination: I Internal | |
| Lab Course Name: | Programming For Problem Solving Lab | | | Year/semester: | I/I |

| S.No | HT No. | R+O+A | V+V | E+E+R |
|---|---|---|---|---|
| **Max. Marks ==>** | | **10** | **10** | **10** |
| 1 | 22X31A6201 | 10 | 8 | 2 |
| 2 | 22X31A6202 | 10 | 0 | 6 |
| 3 | 22X31A6203 | 10 | 6 | 6 |
| 4 | 22X31A6204 | 10 | 6 | 7 |
| 5 | 22X31A6205 | 10 | 5 | 3 |
| 6 | 22X31A6206 | 10 | 6 | 3 |
| 7 | 22X31A6207 | 10 | 5 | 3 |
| 8 | 22X31A6208 | 10 | 7 | 10 |
| 9 | 22X31A6209 | 10 | 3 | 2 |
| 10 | 22X31A6210 | 10 | 6 | 4 |
| 11 | 22X31A6211 | 10 | 4 | 4 |
| 12 | 22X31A6212 | 10 | 5 | 10 |
| 13 | 22X31A6213 | 10 | 4 | 4 |
| 14 | 22X31A6214 | 10 | 5 | 5 |
| 15 | 22X31A6215 | 10 | 4 | 3 |
| 16 | 22X31A6216 | 10 | 5 | 5 |
| 17 | 22X31A6217 | 10 | 6 | 9 |
| 18 | 22X31A6218 | 10 | 5 | 3 |
| 19 | 22X31A6219 | 10 | 6 | 6 |
| 20 | 22X31A6220 | 10 | 4 | 10 |
| 21 | 22X31A6221 | 10 | 5 | 5 |
| 22 | 22X31A6222 | 10 | 5 | 5 |
| 23 | 22X31A6223 | 10 | 5 | 5 |
| 24 | 22X31A6224 | 10 | 3 | 5 |
| 25 | 22X31A6225 | 10 | 5 | 4 |
| 26 | 22X31A6226 | 10 | 5 | 3 |
| 27 | 22X31A6227 | 10 | 5 | 7 |
| 28 | 22X31A6228 | 10 | 3 | 2 |
| 29 | 22X31A6229 | 10 | 4 | 4 |
| 30 | 22X31A6230 | 10 | 4 | 6 |
| 31 | 22X31A6231 | 10 | 3 | 5 |
| 32 | 22X31A6232 | 10 | 3 | 3 |
| 33 | 22X31A6233 | 10 | 5 | 5 |
| 34 | 22X31A6234 | 10 | 3 | 2 |
| 35 | 22X31A6235 | 10 | 4 | 5 |
| 36 | 22X31A6236 | 10 | 5 | 10 |
| 37 | 22X31A6237 | 10 | 5 | 10 |
| 38 | 22X31A6238 | 10 | 5 | 3 |
| 39 | 22X31A6239 | 10 | 5 | 5 |
| 40 | 22X31A6240 | 10 | 5 | 7 |
| 41 | 22X31A6241 | 10 | 5 | 3 |

| | | | | |
|---|---|---|---|---|
| 42 | 22X31A6242 | 10 | 2 | 3 |
| 43 | 22X31A6243 | 10 | 8 | 8 |
| 44 | 22X31A6244 | 10 | 5 | 5 |
| 45 | 22X31A6245 | 10 | 5 | 7 |
| 46 | 22X31A6246 | 10 | 5 | 7 |
| 47 | 22X31A6247 | 10 | 8 | 10 |
| 48 | 22X31A6248 | 10 | 3 | 7 |
| 49 | 22X31A6249 | 10 | 4 | 4 |
| 50 | 22X31A6250 | A | A | A |
| 51 | 22X31A6251 | 10 | 5 | 6 |
| 52 | 22X31A6252 | 10 | 5 | 3 |
| 53 | 22X31A6253 | 10 | 9 | 10 |
| 54 | 22X31A6254 | 10 | 5 | 7 |
| 55 | 22X31A6255 | 10 | 5 | 6 |
| 56 | 22X31A6256 | 10 | 6 | 6 |
| 57 | 22X31A6257 | 10 | 5 | 5 |
| 58 | 22X31A6258 | 10 | 8 | 10 |
| 59 | 22X31A6259 | 10 | 5 | 5 |
| 60 | 22X31A6260 | 10 | 5 | 5 |
| 61 | 22X31A6261 | 10 | 4 | 10 |
| 62 | 22X31A6262 | 10 | 5 | 3 |

| | | | |
|---|---|---|---|
| Target set by the faculty / HoD | 6.00 | 6.00 | 6.00 |
| Number of students performed above the target | 61 | 13 | 25 |
| Number of students attempted | 62 | 62 | 62 |
| Percentage of students scored more than target | 98% | 21% | 40% |

**CO Mapping with Exam Questions:**

| | | | |
|---|---|---|---|
| CO - 1 | **y** | **y** | Y |
| CO - 2 | **y** | **y** | Y |
| CO - 3 | **y** | **y** | Y |
| CO - 4 | | | |
| CO - 5 | | | |
| CO - 6 | | | |

**CO Attainment based on Exam Questions:**

| | | | |
|---|---|---|---|
| CO - 1 | 98% | 98% | 40% |
| CO - 2 | 98% | 98% | 40% |
| CO - 3 | 98% | 98% | 40% |
| CO - 4 | | | |
| CO - 5 | | | |
| CO - 6 | | | |

| CO | Intrnal practical | E+E+R | OveralI | Level |
|---|---|---|---|---|
| CO-1 | 98% | 40% | 69% | 3 |
| CO-2 | 98% | 40% | 69% | 3 |
| CO-3 | 98% | 40% | 69% | 3 |
| CO-4 | | | | |
| CO-5 | | | | |
| CO-6 | | | | |
| Attainment (Internal 1 Examination) = | | | | **3** |

| Attainment Level | |
|---|---|
| 1 | 40% |
| 2 | 50% |
| 3 | 60% |

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of **Humanities and Sciences**

| Course Outcome Attainment (InternalExamination-2) | | | | | |
|---|---|---|---|---|---|
| Name of the faculty | U.NARESH | | | Academic Year:2022-2023 | |
| Branch & Section: | CYBER SECURITY | | | Examination: II Internal | |
| Lab Course Name: | Programming For Problem Solving Lab | | | Year/semester: | I/I |

| S.No | HT No. | R+O+A | V+V | E+E+R | Ppt |
|---|---|---|---|---|---|
| **Max. Marks ==>** | | **10** | **10** | **10** | **10** |
| 1 | 22X31A6201 | 10 | 3 | 6 | 10 |
| 2 | 22X31A6202 | 6 | 4 | 5 | 10 |
| 3 | 22X31A6203 | 9 | 4 | 7 | 10 |
| 4 | 22X31A6204 | 10 | 4 | 6 | 10 |
| 5 | 22X31A6205 | 9 | 4 | 7 | 10 |
| 6 | 22X31A6206 | 10 | 4 | 10 | 10 |
| 7 | 22X31A6207 | 10 | 2 | 6 | 10 |
| 8 | 22X31A6208 | 10 | 3 | 6 | 10 |
| 9 | 22X31A6209 | 7 | 5 | 3 | 10 |
| 10 | 22X31A6210 | 10 | 3 | 7 | 10 |
| 11 | 22X31A6211 | 10 | 1 | 7 | 10 |
| 12 | 22X31A6212 | 10 | 5 | 10 | 10 |
| 13 | 22X31A6213 | 10 | 3 | 7 | 10 |
| 14 | 22X31A6214 | 10 | 3 | 7 | 10 |
| 15 | 22X31A6215 | 10 | 5 | 10 | 10 |
| 16 | 22X31A6216 | 10 | 10 | 6 | 10 |
| 17 | 22X31A6217 | 10 | 4 | 4 | 10 |
| 18 | 22X31A6218 | 10 | 2 | 4 | 10 |
| 19 | 22X31A6219 | 10 | 5 | 4 | 10 |
| 20 | 22X31A6220 | 10 | 4 | 4 | 10 |
| 21 | 22X31A6221 | 10 | 2 | 4 | 10 |
| 22 | 22X31A6222 | 10 | 2 | 4 | 10 |
| 23 | 22X31A6223 | 10 | 5 | 5 | 10 |
| 24 | 22X31A6224 | 10 | 2 | 4 | 10 |
| 25 | 22X31A6225 | 10 | 2 | 4 | 10 |
| 26 | 22X31A6226 | 10 | 4 | 4 | 10 |
| 27 | 22X31A6227 | 10 | 6 | 8 | 10 |
| 28 | 22X31A6228 | 10 | 2 | 4 | 10 |
| 29 | 22X31A6229 | 10 | 4 | 4 | 10 |
| 30 | 22X31A6230 | 10 | 4 | 4 | 10 |
| 31 | 22X31A6231 | 10 | 4 | 4 | 10 |
| 32 | 22X31A6232 | 10 | 4 | 4 | 10 |
| 33 | 22X31A6233 | 10 | 6 | 5 | 10 |
| 34 | 22X31A6234 | 10 | 2 | 4 | 10 |
| 35 | 22X31A6235 | 10 | 2 | 3 | 10 |
| 36 | 22X31A6236 | 10 | 6 | 10 | 10 |

| | | | | | |
|---|---|---|---|---|---|
| 37 | 22X31A6237 | 10 | 7 | 10 | 10 |
| 38 | 22X31A6238 | 10 | 5 | 4 | 10 |
| 39 | 22X31A6239 | 10 | 2 | 4 | 10 |
| 40 | 22X31A6240 | 10 | 4 | 10 | 10 |
| 41 | 22X31A6241 | 10 | 4 | 9 | 10 |
| 42 | 22X31A6242 | 10 | 2 | 3 | 10 |
| 43 | 22X31A6243 | 10 | 7 | 10 | 10 |
| 44 | 22X31A6244 | 10 | 4 | 4 | 10 |
| 45 | 22X31A6245 | 10 | 5 | 5 | 10 |
| 46 | 22X31A6246 | 10 | 7 | 10 | 10 |
| 47 | 22X31A6247 | 10 | 3 | 9 | 10 |
| 48 | 22X31A6248 | 10 | 4 | 4 | 10 |
| 49 | 22X31A6249 | 10 | 6 | 4 | 10 |
| 50 | 22X31A6250 | A | A | A | A |
| 51 | 22X31A6251 | 10 | 4 | 5 | 10 |
| 52 | 22X31A6252 | 10 | 4 | 4 | 10 |
| 53 | 22X31A6253 | 10 | 9 | 10 | 10 |
| 54 | 22X31A6254 | 10 | 3 | 4 | 10 |
| 55 | 22X31A6255 | 10 | 7 | 7 | 10 |
| 56 | 22X31A6256 | 10 | 6 | 5 | 10 |
| 57 | 22X31A6257 | 10 | 3 | 4 | 10 |
| 58 | 22X31A6258 | 10 | 3 | 4 | 10 |
| 59 | 22X31A6259 | 10 | 5 | 5 | 10 |
| 60 | 22X31A6260 | 10 | 6 | 4 | 10 |
| 61 | 22X31A6261 | 10 | 5 | 9 | 10 |
| 62 | 22X31A6262 | 10 | 2 | 3 | 10 |

| | | | | |
|---|---|---|---|---|
| Target set by the faculty / HoD | 6.00 | 6.00 | 6.00 | 6.00 |
| Number of students performed above the target | 61 | 12 | 25 | 61 |
| Number of students attempted | 61 | 61 | 61 | 61 |
| Percentage of students scored more than target | 100% | 20% | 41% | 100% |

**CO Mapping with Exam Questions:**

| | | | | |
|---|---|---|---|---|
| CO - 1 | | | | |
| CO - 2 | | | | |
| CO - 3 | | | | |
| CO - 4 | **y** | **y** | Y | y |
| CO - 5 | **y** | **y** | Y | y |
| CO - 6 | **y** | **y** | Y | y |

**CO Attainment based on Exam Questions:**

| | | | | |
|---|---|---|---|---|
| CO - 1 | | | | |
| CO - 2 | | | | |
| CO - 3 | | | | |
| CO - 4 | 100% | 20% | 41% | 41% |
| CO - 5 | 100% | 20% | 41% | 41% |
| CO - 6 | 100% | 20% | 41% | 41% |

| CO | **Intrnal practical** | **E+E+R** | **ppt** | **OveralI** | **Level** |
|---|---|---|---|---|---|
| CO-1 | | | | | |
| CO-2 | | | | | |
| CO-3 | | | | | |
| CO-4 | 60% | 41% | 41% | 47% | 2 |
| CO-5 | 60% | 41% | 41% | 47% | 2 |
| CO-6 | 60% | 41% | 41% | 47% | 2 |

Attainment (Internal 2 Examination) = **2**

| **Attainment Level** | |
|---|---|
| 1 | 40% |
| 2 | 50% |
| 3 | 60% |

SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences

**Course Outcome Attainment (University Examinations)**

Name of the faculty: U.NARESH Academic Year:2022-2023

Branch & Section: CYBER SECURITY Year/Semester:I/I

Lab Course Name: Programming For Problem Solving Lab

| S.No | Roll Number | Marks Secured |
|---|---|---|
| 1 | 22X31A6201 | 49 |
| 2 | 22X31A6202 | 45 |
| 3 | 22X31A6203 | 51 |
| 4 | 22X31A6204 | 52 |
| 5 | 22X31A6205 | 56 |
| 6 | 22X31A6206 | 51 |
| 7 | 22X31A6207 | 47 |
| 8 | 22X31A6208 | 58 |
| 9 | 22X31A6209 | 45 |
| 10 | 22X31A6210 | 51 |
| 11 | 22X31A6211 | 50 |
| 12 | 22X31A6212 | 54 |
| 13 | 22X31A6213 | 45 |
| 14 | 22X31A6214 | 47 |
| 15 | 22X31A6215 | 51 |
| 16 | 22X31A6216 | 53 |
| 17 | 22X31A6217 | 54 |
| 18 | 22X31A6218 | 51 |
| 19 | 22X31A6219 | 53 |
| 20 | 22X31A6220 | 51 |
| 21 | 22X31A6221 | 45 |
| 22 | 22X31A6222 | 50 |
| 23 | 22X31A6223 | 50 |
| 24 | 22X31A6224 | 48 |
| 25 | 22X31A6225 | 41 |
| 26 | 22X31A6226 | 47 |
| 27 | 22X31A6227 | 55 |
| 28 | 22X31A6228 | 45 |
| 29 | 22X31A6229 | 45 |
| 30 | 22X31A6230 | 47 |
| 31 | 22X31A6231 | 48 |
| 32 | 22X31A6232 | 50 |
| 33 | 22X31A6233 | 51 |
| 34 | 22X31A6234 | 45 |

| S.No | Roll Number | Marks Secured |
|---|---|---|
| 35 | 22X31A6235 | 52 |
| 36 | 22X31A6236 | 51 |
| 37 | 22X31A6237 | 45 |
| 38 | 22X31A6238 | 45 |
| 39 | 22X31A6239 | 46 |
| 40 | 22X31A6240 | 53 |
| 41 | 22X31A6241 | 52 |
| 42 | 22X31A6242 | 48 |
| 43 | 22X31A6243 | 55 |
| 44 | 22X31A6244 | 51 |
| 45 | 22X31A6245 | 53 |
| 46 | 22X31A6246 | 53 |
| 47 | 22X31A6247 | 58 |
| 48 | 22X31A6248 | 54 |
| 49 | 22X31A6249 | 51 |
| 50 | 22X31A6250 | A |
| 51 | 22X31A6251 | 52 |
| 52 | 22X31A6252 | 45 |
| 53 | 22X31A6253 | 60 |
| 54 | 22X31A6254 | 51 |
| 55 | 22X31A6255 | 55 |
| 56 | 22X31A6256 | 54 |
| 57 | 22X31A6257 | 50 |
| 58 | 22X31A6258 | 56 |
| 59 | 22X31A6259 | 50 |
| 60 | 22X31A6260 | 50 |
| 61 | 22X31A6261 | 53 |
| 62 | 22X31A6262 | 48 |

| Attainment Level | %students |
|---|---|
| 1 | 40% |
| | 50% |
| 3 | 60% |

# SRI INDU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Humanities and Sciences

## Course Outcome Attainment

Name of the faculty: U.NARESH
Branch & Section: CYBER SECURITY
Lab Course Name: Programming For Problem Solving Lab

AcademicYear:2022-2023
Year/Semester:I/I

| Course Outcomes | 1st Internal Exam | 2nd Internal Exam | Internal Exam | University Exam | Attainment Level |
|---|---|---|---|---|---|
| CO1 | 3.00 | | 3.00 | 3.00 | 3.00 |
| CO2 | 3.00 | | 3.00 | 3.00 | 3.00 |
| CO3 | 3.00 | | 3.00 | 3.00 | 3.00 |
| CO4 | | 2.00 | 2.00 | 3.00 | 2.30 |
| CO5 | | 2.00 | 2.00 | 3.00 | 2.30 |
| CO6 | | 2.00 | 2.00 | 3.00 | 2.30 |
| Internal & University Attainment: | | | 2.50 | 3.00 | |
| Weightage | | | 70% | 30% | |
| CO Attainment for the course (Internal, University) | | | 1.75 | 0.90 | |
| CO Attainment for the course (Direct Method) | | | 2.65 | | |

| Overall course attainment level | **2.65** |
|---|---|

# SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Humanities and Sciences

**Program Outcome Attainment (from Course)**

Name of Faculty: U.NARESH
Branch & Section: CYBER SECURITY
Course Name: Programming For Problem Solving Lab
Academic Year: 2022-2023
Year/Semester: I/I

**CO-PO mapping**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C118.**1** | 2 | 2 | 3 | - | 1 | - | - | - | - | - | - | 2 | 2 | 2 |
| C118.**2** | - | 2 | 3 | 1 | 2 | - | - | - | 2 | - | - | - | 3 | 3 |
| C118.**3** | 1 | 2 | 3 | - | 2 | - | - | - | - | - | - | - | 2 | - |
| C118.**4** | - | 2 | 3 | - | 1 | - | - | - | - | - | 2 | - | - | - |
| C118.**5** | 3 | 2 | 2 | - | - | - | - | - | - | - | 2 | - | - | - |
| C118.**6** | 2 | 2 | 2 | 2 | 1 | - | - | - | - | - | - | - | 3 | - |
| C118 | 2 | 2 | 2.3 | 1.5 | 1.4 | - | - | - | 2 | - | 2 | 2 | 2.5 | 2.5 |

| **CO** | **Course Outcome Attainment** |
|---|---|
| **CO1** | 3.00 |
| **CO2** | 3.00 |
| **CO3** | 3.00 |
| **CO4** | 2.30 |
| **CO5** | 2.30 |
| **CO6** | 2.30 |
| **Overall course attainment level** | **2.65** |

**PO-ATTAINMENT**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO Attainment** | **1.77** | **1.77** | **2.03** | **1.33** | **1.24** | **#####** | **######** | **#####** | **1.77** | **#####** | **1.77** | **1.77** | **2.21** | **2.21** |
| **CO contribution to PO - 33%, 67%, 100% (Level 1/2/3)** | | | | | | | | | | | | | | |