



Shirpur Education Society's
R. C. PATEL INSTITUTE OF TECHNOLOGY, SHIRPUR
An Autonomous Institute

[Affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere]



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Programme: B.TECH (AIML)/B.TECH (COMP)/B.TECH (DATA SCI.)/B.TECH (EXTC)/B.TECH (ELECT)/
B.TECH (CIVIL)/B.TECH (MECH)

Year: I/Semester I (Exam Year: 2023-2024)

Subject: Structured Programming using C

Date: 11 Mar 2024

Time: 08:00 am - 10:00 am (02:00 Hrs.)

Max Marks: 60

RE END SEMESTER EXAMINATION SEM-I (2023-2024)

Instructions:

1. This question paper contains 2 pages
2. All Questions are Compulsory.
3. Figure in right hand side indicates full marks.
4. Answer to each new question to be started on a fresh page.
5. Assume suitable data wherever required, but justify it.
6. Support your answers with neat labelled diagrams, wherever necessary.

1. 15

A. 10

I. Implement a C program to find the sum of individual digits of a 3-digit number. 10

----- OR -----

II. If the Quadratic equation ($ax^2 + bx + c = 0$) is given to you identify which statement you will use to find the roots of quadratic equation. Write and explain the syntax of statement. Write a psuedo code for solution. 10

B. Write a program to display whether a person can vote for an election or not based on his age using ternary operator. 5

(Note: If the age of a person is above 18 then display Welcome to voting System else display Invalid User)

2. 15

A. 1. Explain following terms :

10

1. Character Set, 2. Identifiers, 3. Keywords, 4. Data types, 5. Variables.

B.

5

I. Write an algorithm and draw a flowchart to find entered number is even or odd number.

5

----- OR -----

II. i. Write a short note on Binary number System.

5

ii. Convert decimal number 128_{10} to binary.

3.

15

A.

10

I. Write a program in C to delete an element at a desired position from an array. The elements of the array are taken from the user.

10

----- OR -----

II. Write a C program to count the number of characters, words and lines in a given text.

10

B. Implement a C program to compare two strings using strcmp() function.

5

4.

15

A. Define recursion. Write a recursive C function to find a Fibonacci series till a given number.

10

B.

5

I. Discuss NULL pointer along with suitable example.

5

----- OR -----

II. Write a program to find the length of a string using pointers.

5