

Time: 2 hour

Max. Marks: 60

NB: 1) Question No.1 is compulsory.

2) Attempt any three questions from question no. 2 to 6.

Q1
(15 marks)

Solve any Three out of the following (5 marks each)

- A Explain what is flowchart ? Explain different symbols used in flowchart .
- B Explain following library functions with proper example.
1. pow() 2.ceil() 3. floor() 4. sqrt()
Write a program to print following pattern after accepting number of rows from user.
- C
1
2 3
4 5 6
7 8 9 10
- D Differentiate between Structure and Union.
- E Explain conditional Operator with proper example.

Q2
(15marks)

- A What is Recursion? Write a program to find GCD of two numbers using recursive function. 6M
- B Explain Different data type modifiers available in C language. 5M
- C Write a program to find length of a string without using standard library function. 4M

Q3
(15marks)

- A Write a program to display all prime numbers from 100 to 500. 6M
- B Write a program in C to find average of N elements entered by user using an array. 5M
- C Explain with example left and right shift bitwise operators. 4M

Q4
(15marks)

- A Write a program to store information of 10 students using Structure. Information include Roll, name, marks of a student 6M
- B Write a C program to check whether user entered string is palindrome or not. 5M

C Write the output for the following code. 4M

```
#include<stdio.h>
void main( )
{
    int i;
    for(i=0;i<5i++);
    printf("%d",i);
    printf("\nhi");
}
```

Q5
(15marks)

- A Write a program to find largest of three numbers. 6M
- B Differentiate between entry and exit controlled loop. 5M
- C Explain the need of Function Prototype with example. 4M

Q6
(15marks)

- A Write a program to check whether square matrix is symmetric or not. 6M
- B Write an algorithm and draw flowchart to check whether given number is prime number or not. 5M
- C Explain with syntax and example multi-way branching statement 4M
