

[Time:2.30 Hrs]

[Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Figures to the right indicate full marks.
 3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

Q.1 Attempt **any three** of the following: 15

- a. Explain the different types of programming languages.
- b. What is the difference between compiler and interpreter?
- c. Enlist features of C programming. Explain any 5 in brief.
- d. What is a flowchart? Explain its components.
- e. What is variable? Explain the rules of naming a variable.
- f. Explain the various datatypes of C language.

Q.2 Attempt **any three** of the following: 15

- a. What is an operator? Explain relational operator with example.
- b. Explain the following: scanf(), printf(), sizeof(), sqrt().
- c. What is format specifier? Explain its different types with an example.
- d. Write a code in C to find the area of a square. Accept input from the user.
- e. Write a short note on interactive programming.
- f. Explain the difference between gets () and puts ().

Q.3 Attempt **any three** of the following: 15

- a. Write a C program to check if a number is negative, positive or zero.
- b. Explain switch case with example.
- c. Explain for loop with an example.
- d. Write a short note on functions.
- e. What is the difference between call by value and call by reference?
- f. Write a code in C to print factorial of a number. Accept input from the user.

Q.4 Attempt **any three** of the following: 15

- a. Explain register storage class.
- b. What are preprocessor directives in C?
- c. What is an array? Write a code to iteratively print the elements of a 1D array.
- d. Explain the following: strlen() strcpy() strcmp() string.h
- e. Write a code in C to concatenate two strings.
- f. Write a short note on macros in C.

Q.5 Attempt **any three** of the following: 15

- a. Explain pointers with an example.
- b. Write a short note on structures.
- c. Explain any one arithmetic operator on pointers.
- d. Write a short note on union with an example.
- e. Write a code in C to declare an array of structure called student. Initialize 3 students seat number and age.
- f. Write a code in C to demonstrate ++ and -- operator on pointers.