

M.Sc. - I (Electronics) (Old / CBCS Pattern) First Semester
ELE104 / PSCELET04 - Core-4 - Paper-IV : Programing In C

P. Pages : 2

Time : Three Hours



GUG/W/18/11157

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw flow chart whenever necessary.

1. Either.

- a) Explain the character set supported by 'C' language. What are data types? List the various data types supported by 'C' language. **8**
- b) Differentiate between constant and variable. Explain any two types of constant used in 'C' and give two examples of each. **8**

OR

- c) What is an operator? Explain any two types of operators with example. **8**
- d) Explain the syntax of the function scanf() and printf(). Write a program to convert the temperature in Fahrenheit for a given temperature in Celsius. **8**

2. Either.

- a) Explain the concept of branching. State the various branching statements supported by 'C'. What is purpose of switch statement? Explain. **8**
- b) Write a program in 'C' to print Floyd's triangle. **8**

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

OR

- c) Explain while loop with suitable example. What is comma operator? Explain with example. **8**
- d) Differentiate between if-else and switch statement. Write a program to print following pyramid. **8**

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

3. Either.
- a) Explain the following string functions. 8
i) strcat() ii) strcmp
iii) strcpy() iv) strlen()
- b) What is sorting? Write a program to sort a numeric array using bubble sort technique. 8

OR

- c) What is recursion? Explain with example. 8
- d) What is an user defined function? Explain the different types of user defined functions. 8
Write a program in 'C' using function to find largest of three numbers.
4. Either.
- a) What is a pointer variable? Explain declaration and initialization of a pointer. Give the rules used for pointer arithmetic. 8
- b) Differentiate between call by value and call by reference. Write a program to sort the list of string using pointer. 8

OR

- c) What are the command line argument? Explain. 8
- d) What is stream pointer? What is the relationship between a stream pointer and buffer area? 8
Write a program to simulate DOS type command.
5. a) Write a 'C' program to accept decimal number and display equivalent number in octal and hexadecimal. 4
- b) Write a 'C' program to generate Fibonacci series upto 10 numbers. Fibonacci series is 112358 ----. 4
- c) Explain how to write an element into an array. 4
- d) What are the common uses of rewind and ftell functions? 4
