

M.Sc. F.Y. (Electronics) (CBCS Pattern) Sem-I  
**PSCELET04 / PSELT104 - Paper-IV - Core-IV : Programming in C**

P. Pages : 2

Time : Three Hours



**GUG/W/22/11157**

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Use either ANSI C or TURBO C for program writhing

**Either**

1.
  - a) Explain with examples the following operators: 8
    - i) Arithmetic operators, and
    - ii) Logical operators.
  - b) Explain with examples, 8
    - i) Formated Input, and
    - ii) Formated output.

**OR**

- c) State rules for declaring variable name in 'C' 8  
Explain the hierarchy of mathematical operator with suitable example.
- d) What are Keywords and identifiers in 'C' 8  
Explain various types of identifiers.

**Either**

2.
  - a) Explain the following looping statements: 8
    - i) 'While' statement, and
    - ii) 'for' Statement
  - b) Write a C-program to print following triangle of stars: 8

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

**OR**

- c) Explain the following statements with examples: 8
  - i) Break statement, and
  - ii) Continue statement .
- d) Write a C-program to print the following triangle of numbers 8

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

**Either**

3. a) What is an array? With examples, explain one and two dimensional arrays. 8
- b) Explain storage classes in 'C' 8

**OR**

- c) What is recursion? Write a C-program to find factorial of a number using recursion. 8
- d) Explain passing of structure to function. 8

**Either**

4. a) Explain following functions 8
- i) Feof(), and
- ii) Fewind
- b) Write a C-Program to copy content of one file into another file 8

**OR**

- c) Explain syntax of structure declaration write a C-Program using structure to accept record of an employee containing name, age and salary and display the same as the output 8
- d) Mention the functions used for opening and closing a file and explain them. 8

5. a) Explain the structure of C-Program. 4
- b) Write a C-Program to read 4 variables a, b, c and d from the terminal and evaluate the ratio (a+b) to (c-d) and prints the result if (c-d) is not equal to zero. 4
- c) What is UNION? How does it differ from structure 4
- d) When a program is terminated, all the files used by it are automatically closed. Why is then necessary to close a file before closing a program? 4

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