

## Bachelor of Science (B.Sc.) Semester—VI Examination

## PROGRAMMING IN “C”

## Optional Paper—1

## (Electronics)

Time : Three Hours]

[Maximum Marks : 50

**N.B. :—** (1) All questions are compulsory and carry equal marks.

(2) Draw a well labelled diagram wherever necessary.

**EITHER**

1. (a) What is an operator ? Explain any two operator used in ‘C’ with examples.
- (b) What are different constants ? Explain integer constant and real constant with suitable examples. 5+5

**OR**

- (c) What is scanf ( ) function ? Write a program in ‘C’ to convert given temperature from Fahrenheit to Celsius.
- (d) What is Keyword ? State its importance enlist any five keywords in ‘C’. 5+5

**EITHER**

2. (a) Explain switch statement with suitable example.
- (b) Discuss following looping statement with suitable example :
  - (i) While
  - (ii) Do-while. 5+5

**OR**

- (c) What is one dimensional array ? Explain how array can be declared in ‘C’ with example.
- (d) Write a program in “C” to find the reverse of a given integer number. 5+5

**EITHER**

3. (a) Explain the function with no arguments and no return value with example. Explain the scope and lifetime of variables in ‘C’ function.
- (b) What is structure ? Explain with suitable example. Explain how structure can be initialized. 3+2+5

**OR**

- (c) Write a programme in ‘C’ to find the factorial of given numbers using function.
- (d) Explain the meaning and purpose of following in ‘C’ language :
  - (i) Template
  - (ii) Tag
  - (iii) Size of
  - (iv) Struct
  - (v) Global variable. 5+5

**EITHER**

4. (a) Explain fprintf and fscanf function with example.  
(b) Write a program to copy the contents of one file to another file. 5+5

**OR**

- (c) Explain the following functions :  
(i) fseek ( )  
(ii) rewind ( )  
(d) Write a short note on command line arguments with suitable example. 5+5
5. Solve and **TEN** :  
(a) Define 'C' token.  
(b) Explain putchar ( ).  
(c) What is the difference between ++ and ++i.  
(d) Give the flowchart for if-else statement.  
(e) What is entry controlled loop ?  
(f) Give the significance of GO-TO statement.  
(g) What is recursion ?  
(h) What is library functions ?  
(i) Define UNIONS.  
(j) What is fopen ( ) ?  
(k) What is pointer ?  
(l) How does an append mode differ from a write mode ? 1×10