

**Q.P. Code : 11125**

**First Semester B.Sc. Degree Examination,  
November/December 2019**

*(CBCS Scheme – Freshers and Repeaters)*

**Computer Science**

**Paper CS1T – PROGRAMMING CONCEPTS USING C**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to Candidates : Answer all Sections.*

**SECTION – A**

- I. Answer any **TEN** questions. Each question carries **2** marks : **(10 × 2 = 20)**
1. What is structured programming? Explain briefly.
  2. What is an algorithm? Write its features.
  3. Give any two difference between if ( ) and switch statement.
  4. Give any four advantages of functions.
  5. What is two-dimensional array? How is it declared?
  6. What are Possible Operations on strings? List them.
  7. What is a pointer? With example.
  8. What are local and global variables?
  9. What is enumerated data type? Give example.
  10. How does an append mode different from write mode?
  11. What is a pre-processor directive?
  12. What is a Macro? List the types of Macro.



**SECTION – B**

- II. Answer any **FIVE** questions from the following. Each question carries **10** marks : **(5 × 10 = 50)**
13. (a) Explain the classification of software.
  - (b) Explain the different data type supported by C-Programming Environment. **(5 + 5)**

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14. (a) Draw a flowchart to find the roots of quadratic equations showing all possible conditions.
- (b) Write the rules for naming variable. Give one example for each rule. **(5 + 5)**
15. (a) Elaborate in detail by explaining
- (a) Print f( )
- (b) Scan f( ) functions with suitable example of 'C'-code.
- (b) Differentiate between formal and actual parameters with suitable example. **(5 + 5)**
16. (a) Write a program to find the sum of elements of two-dimensional arrays of given size  $n \times n$ .
- (b) Explain the four storage classes of 'C' programming. **(5 + 5)**
17. (a) Write a program to Implement Bubble sort.
- (b) Write a program to reverse the given string. **(5 + 5)**
18. (a) Explain the nested structure and array of structures with suitable examples.
- (b) Write a 'C' program to find the factorial of n number using recursion. **(5 + 5)**
19. (a) Explain calloc( ) malloc( ) and free( ) functions with suitable example.
- (b) What are the different modes of opening a text file? Explain with example. **(5 + 5)**
20. (a) What is undefining Macros? Differentiate between Macros and Functions.
- (b) Explain the concept of user defined header files with suitable example. **(5 + 5)**



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I Semester B.A./ B.Sc. Examination, November/December 2017  
(2014 – 15 and Onwards)  
(CBCS) (F+R)  
**COMPUTER SCIENCE – I**  
**Programming Concepts using C**

Time : 3 Hours

Max. Marks : 70

**Instruction** : Answer all Sections.

SECTION – A

I. Answer **any 10** questions. **Each** question carries **2** marks. (10×2=20)

- 1) What are language translators ?
- 2) Write some of the features of C.
- 3) Find the value of m,n. in the following C statement  
int x = 5, y = 2;  
float m, n ;  
m = x/y;  
n = (float) x/y;
- 4) What is the difference between if and switch statement ?
- 5) What is a function prototype ?
- 6) Give reason why the index value of an array is integer and not a float using suitable example.
- 7) What is the difference between strcmp () and strcmpi () ?
- 8) What are unions ?
- 9) What is a pointer and what are the operators associated with a pointer ?
- 10) How do you declare a file ? Give suitable example.



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- 11) Write an example for creating and implementing user defined header file.
- 12) Write the difference between malloc ( ) and calloc ( ) functions.

SECTION - B

II. Answer **any 5** questions. **Each** question carries **10** marks. (5×10=50)

- 13) a) Write a flowchart to find the sum of N natural numbers.  
b) Write the structure of a C program and explain the various sections. (5+5)
- 14) a) Explain switch statement, with suitable example.  
b) Explain do-while loop with an example. (5+5)
- 15) a) Write a C program to calculate  $NCR = \frac{N!}{R! * (N - R)!}$  using function.  
b) What is an array ? Explain the different types of arrays with their syntax and example. (5+5)
- 16) a) Write a C program to find the transpose of a given matrix.  
b) What is a storage class ? Explain any 2 storage classes. (5+5)
- 17) a) What are structures ? How do you define and declare a structure variable ?  
b) What is typedef ? Explain.  
c) What is call-by-value and call-by-reference ? (4+3+3)
- 18) a) What do you mean by static and dynamic memory allocation ?  
b) Explain any 6 file handling functions. (4+6)
- 19) a) What is a macro ? Give example.  
b) Explain various categories of preprocessor directives. (3+7)
- 20) a) Write a C program to compare two strings using pointers.  
b) Explain :
  - i) Function with arguments and no return value.
  - ii) Function with arguments and return value.



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I Semester B.A./B.Sc. Examination, November/December 2016  
(Semester Scheme) (CBCS) (F+R)  
(2014-15 and Onwards)  
COMPUTER SCIENCE – I  
Programming Concepts Using C

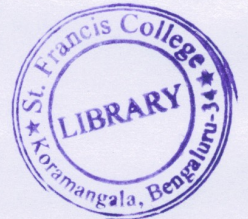
Time : 3 Hours

Max. Marks : 70

**Instruction:** Answer **all** the Sections.

SECTION – A

- I. Answer **any 10** questions. **Each** question carries **2** marks : (2×10=20)
- 1) What is an algorithm ? Write its features.
  - 2) What is the difference between prefix increment and postfix increment ? Illustrate with an example.
  - 3) Compare printf ( ) and puts ( ) functions.
  - 4) Write the difference between entry controlled and exit-controlled loops.
  - 5) What are formal parameters ? Explain.
  - 6) Explain an array with example.
  - 7) What are the possible operations on strings ? List them.
  - 8) What are static variables ? Explain it.
  - 9) Differentiate between a character and a string with an example.
  - 10) What is a pointer ? How it is declared ?
  - 11) Explain command line arguments.
  - 12) Compare printf and fprintf functions.



SECTION – B

- II. Answer **any 5** questions. **Each** question carries **10** marks : (5×10=50)
- 13) a) Write an algorithm for largest of three numbers. 4
  - b) Write the different data types available in C. Give an example for each. 6

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- 14) a) What are different symbols used in flow chart ? Explain their usage. 5  
b) Write the basic structure of an C program. Illustrate with an example. 5
- 15) a) Explain the different format specifiers for printf ( ) and scanf ( ) functions. 4  
b) Explain switch-case statement with an example. 6
- 16) a) Explain the working of if ( ) and if-else ( ) statements with an example. 4  
b) Write a C program to generate a range of prime numbers using a function. 6
- 17) a) Write a C program to transpose a given matrix. 5  
b) Explain any five mathematical library functions with an example. 5
- 18) a) Write a C program to find the largest and smallest of numbers. Use 1-D array. 5  
b) Write a C program to demonstrate the call by reference method. 5
- 19) a) Explain four storage classes of C. 5  
b) Differentiate between a structure and a union with an example. 5
- 20) a) Explain file access models in 'C' ? 5  
b) What are macros ? Explain with an example. 5
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