# Faculty of Science

**B.Sc (Computer Science) I-Year, CBCS-I Semester Backlog Examinations, January 2021**

## PAPER: PROGRAMMING IN C

Time: 2 Hours                                                                 Max Marks: 80

I.  Answer any **FOUR** of the following questions                    (4x20=80 Marks)

1.  Describe generation and classification of programming languages, compiling, interpreting and software development.

2.  Write algorithms and flowcharts for the following:

    i)      Binary search

    ii)     Factorial of $N^{th}$ number

3.  What are special control statements? Explain in detail with C programs.

4.  Explain in detail about functions of ctype.h and string.h with C programs.

5.  What are storage classes? Define inline functions. Explain these concepts with C programs.

6.  Discuss about arrays and pointers and pointers and strings with C programs.

7.  Define structure and union. Distinguish between structure and union. Write a C program to add two complex numbers by passing structure to a function.

8.  (a) Write a C program to write all the members of an array of structures to a file using fwrite(). Read the array from the file and display on the screen.

    (b) Write a C program to count the total number of characters inside the source file.

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**Faculty of Science**
**B.Sc (Computer Science) I-Year, CBCS-I Semester**
**Backlog Examinations –June/July, 2022**
**PAPER: Programing in C**

Time: 3 Hours                                                                 Max Marks: 80

**Section-A**

I.  Answer any *eight* of the following questions                    (8x4=32 Marks)

1.  What are the Keywords?
2.  Type Conversions.
3.  What is Interpreting?
4.  Escape Sequences.
5.  What is Control Statement? Write a program for "break" statement.
6.  What is String?
7.  What are the Inline Functions?
8.  Explain about Recursion function.
9.  What is Score of Variables?
10. Enumeration Types.
11. What is File?
12. Structures.

**Section-B**

II. Answer the following questions                                   (4x12=48 Marks)

13. (a) Write a program to find a number entered is prime number or not.

(OR)

(b) Explain various types of operators in C. What is operator precedence and associativitly?

14. (a) What is an array? Explain multi-dimensional array with an example.

(OR)

(b) What is loop? Explain various types of loop with syntax an example.

15. (a) Explain Call-by-Value Vs Call-by-reference with an example.

(OR)

(b) What is pointer? Explain use of & and * operators in pointer.

16. (a) Explain dynamic array of structure through pointer to structure.

(OR)

(b) Explain file handling through command line argument.

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Code:1304/19/BL

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**PAPER: Programming in C**

Time: 3 Hours                                                                 Max Marks: 80

### Section-A

I.  Answer any *eight* of the following questions                 (8x4=32 Marks)
   1. Explain the different types of program statements in C
   2. Explain the classification of computers.
   3. Define a)compiler b)interpreter c)assembler d)translator
   4. Explain about do..while statement.
   5. Write about escape sequences with its purpose.
   6. What is a string.Name some functions in string.h.
   7. Explain about inline function.
   8. List and explain storage classes in C.
   9. Write a short note on address of operator.
   10. Write the syntax of structure declaration.
   11. Explain various operations on files.
   12. Write about file management functions.

### Section-B

II. Answer the following questions                                  (4x12=48 Marks)
   13. (a) Define algorithm and explain in detail about different ways of stating an
           algorithm.

   (OR)
   (b) Explain various C operators with examples.
   14. (a) Explain about special control statements with syntax and examples.
   (OR)
   (b) What is an array explain in detail about 1D and 2D array with an example.
   15. (a) Explain call by value and call by reference with examples.
   (OR)
   (b) Explain declaration, initialization and accessing of pointers in C with an example
       program.
   16. (a) Differentiate between structure and union with example programs.
   (OR)
   (b) Explain about files and working with binary files in C language

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