



WEST BENGAL STATE UNIVERSITY
B.A./B.Sc. Honours 1st Semester Examination, 2021-22

CMAACOR01T-COMPUTER APPLICATION (CC1)

PROGRAMMING FUNDAMENTAL USING C

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

Answer Question No. 1 and any *four* questions from the rest

1. Answer any *four* questions from the following: 2×4 = 8
- (a) What is the difference between Automatic and Register variable in C?
 - (b) What is the difference between While and Do-While loops in C?
 - (c) Distinguish between Structure and Union in C.
 - (d) How is a Pointer in C related to One Dimensional Array?
 - (e) Differentiate between Static and Dynamic memory allocation.
 - (f) What is the use of Break and Continue statements in C program?
 - (g) What is the difference between a Macro and a Function in a C program?
 - (h) When do we need Function Declaration in a C program?

2. (a) Briefly describe all the Storage Class Specifiers in C language with examples. 4+(2+2)
- (b) Write the general syntax and working of Switch and Goto statement in C Language.

3. (a) What is the Output of the following C code? 2+(3+3)

```
int main()
{
    int x = 7, y = 5;
    x = y++ + x ++;
    y = ++y + ++x;
    printf(“%d%d”, x, y);
    return 0;
}
```

- (b) Explain the difference between = and == operators in a C Program. Explain the role of parameters argc and argv of main function in C.
4. (a) Distinguish between passing parameters in a function by Call by Value and Call by Reference in C program. How will you access a one dimensional array using pointer in C? (2+2)+4
- (b) Write a program code in C which Swaps two integer variables by using bitwise exclusive OR operator (^).
5. (a) Explain Function Declaration and Function Definition with an example in C Programming Language. 2+4+2
- (b) Write a C program for Fibonacci Series using Recursion.
- (c) What are the Problems of Recursion?
6. (a) What is the difference between Actual and Formal Parameters? 2+6
- (b) Write a C Program to count Vowels and Consonants in a String using Pointer.
7. Define a Structure Data Type called **TimeStruct** containing 3 members called Hour, Minute and Second. Develop a program that would assign values to the individual members and display the time in the form **16:40:30**. 8
8. (a) Write a C program that will receive a file name and a line of text as command line arguments and write the text to that file. 6+2
- (b) Explain “C doesn’t support Bound Checking.”

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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