



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 1st Semester Examination, 2020, held in 2021

**CMSACOR01T- COMPUTER SCIENCE (CC1)**

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.*

**GROUP-A**

1. Answer any **four** questions from the following: 2×4 = 8
- (a) Why C is called procedural language?
  - (b) What do you mean by header files?
  - (c) Differentiate between while loop and do-while loop in C.
  - (d) What do you mean by derived data types?
  - (e) What is pointer?
  - (f) What is copy constructor?
  - (g) What do you mean by classes and objects?

**GROUP-B**

**Answer any four questions from the following** 8×4 = 32

2. (a) How a C Program is compiled and executed? Mention all steps involved in this entire process. 3
- (b) Compare if-else construct with switch-case construct in C. 3
- (c) State the difference between '=' operator and '==' operator in C. 2
3. (a) What do you mean by polymorphism? 2
- (b) Define constructor. How it can be overloaded? 1+2
- (c) Differentiate between function overloading and function overriding. 3
4. (a) Distinguish between 'call by value' and 'call by reference'. Give examples. 4
- (b) What is double pointer? 2
- (c) What do you mean by dereferencing a pointer variable? 2

5. (a) What is recursion? 2  
(b) State the differences between member functions and friend functions of a class. 2  
(c) What do you mean by inline functions? 2  
(d) Give examples of some operators which cannot be overloaded in C++. 2
6. Distinguish between the following:  
(a) Structure and Union 4  
(b) Static memory allocation and Dynamic memory allocation. 4
7. (a) Write a recursive function to find the factorial of a number. 4  
(b) Write a program in C++ to overload any binary operator. 4
8. Write short notes on any *two* of the following: 4+4  
(a) Inheritance property of OOP  
(b) User Defined Functions in C/C++  
(c) Storage class specifiers in C.

**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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