



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.*

—x—