

Bachelor of Science (B.Sc.) Semester–II (C.B.S.) Examination

COMPUTER SCIENCE

(Object Oriented Programming Using C++)

Compulsory Paper–1

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.
(2) Draw neat and labelled diagrams wherever necessary.

EITHER

1. (a) Explain features of object oriented programming. 5
- (b) What is an object ? How are objects created ? Explain. 5

OR

- (c) Explain defining member functions inside and outside the body of class. 5
- (d) Write short note on static data member. 5

EITHER

2. (a) Write a program to demonstrate overloading of binary operator “+”. 5
- (b) Explain default constructor with example. 5

OR

- (c) What is copy constructor ? Write a program to demonstrate the use of copy constructor. 5
- (d) Write a program to demonstrate overloading of unary minus. 5

EITHER

3. (a) List types of inheritance. Explain any one. 5
- (b) Explain memory management operators : new and delete. 5

OR

- (c) What is array of objects ? Explain with a suitable example. 5
- (d) What is Inheritance ? Explain multilevel inheritance. 5

EITHER

4. (a) Explain the role of virtual functions in polymorphism with suitable example. 5
- (b) What is an exception ? How are exceptions handled in C++ ? 5

OR

- (c) What do you mean by fault tolerance ? Discuss fault tolerant design techniques. 5
- (d) Explain uncaught exception with an example. 5

5. Attempt **all** :

- (i) Write a note on access specifiers. 2½
- (ii) List operators that are not overloadable. 2½
- (iii) Explain the concept of “this” pointer. 2½
- (iv) Write a note on Abstract Class. 2½