

NRT/KS/19/2067

Bachelor of Science (B.Sc.) Semester–II Examination
COMPUTER SCIENCE (OBJECT ORIENTED PROGRAMMING USING C++)
Optional Paper–1

Time : 3 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) Describe the characteristics of OOP. 5
(b) What is Inline function ? Write a program using inline function to find largest of three numbers. 5

OR

- (c) What is Class ? How is it created ? Write an example to define a class. 5
(d) Write a C++ program to illustrate the static function. 5

EITHER

2. (a) Write a program to overload increment operator(++). 5
(b) What is copy constructor ? Explain the necessity of defining copy constructor. 5

OR

- (c) What is parameterized constructor ? Write a program to demonstrate parameterized constructor. 5
(d) What do you mean by overloading ? State different rules for operator overloading. 5

EITHER

3. (a) What is multilevel inheritance ? Write a program to demonstrate multilevel inheritance. 5
(b) Write a note on :
(i) this pointer
(ii) pointers to objects. 5

OR

- (c) Define Dynamic objects. Explain New and Delete operators with an example. 5
(d) What is abstract class ? Write a program to demonstrate an abstract class. 5

EITHER

4. (a) What are the different advantages and disadvantages of exception handling mechanism ? 5
(b) What is virtual function ? Write a program to illustrate the use of virtual function. 5

OR

- (c) Write a note on try block, throw and a catch block. 5
(d) Explain fault tolerant design techniques in brief. 5

5. (a) List and explain different access specifiers. 2½
(b) Explain concept of Binary operator overloading. 2½
(c) What is Hierarchical Inheritance ? Explain. 2½
(d) What are rules for handling Exception successfully ? 2½