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Roll No. _____

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B.C.A. Examination, 2019

Third Semester

First Paper

(Object Oriented Programming Using C++)

Time : Three Hours

Maximum Marks : 75

Note: Attempt any **five** questions. All questions carry equal marks.

Note: The answers to short questions should not exceed 200 words and the answers to long questions should not exceed 500 words.

1. (a) Differentiate between: $7\frac{1}{2}$
 (i) C and C++
 (ii) Procedural Programming and Object oriented Programming
 (b) Write short notes on containers. $7\frac{1}{2}$

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2. (a) Discuss how dynamic allocation is achieved in C++ programming. 7½
(b) Write the rules for overloading of operators. 7½
3. (a) What is generic programming? How is it implemented in C++? 7½
(b) Write a C++ program to sort the given list of numbers in ascending order. 7½
4. (a) What are the different forms of inheritance supported by C++? Explain with examples. 10
(b) Can bare class access the members of a derived class? Give reasons. 5
5. (a) Discuss briefly various Exception Handling options. 7½
(b) Write a C++ program to implement friend class. * 7½
6. (a) Write short notes on predefined streams. 7½

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- (b) Create a new file to store and retrieve the student marks details using file I/O classes. 7½
7. Write short notes on any **three** of the following: 5×3=15
(i) Overriding
(ii) Polymorphism
(iii) Garbage collection
(iv) Interface
8. Write a program in C++ to generate the Fibonacci series upto N terms, where N is provided at runtime. 15

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