

C

(Printed Pages 4)

Roll No. _____

20/1086

B.C.A. Examination, 2020

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) What is inheritance? What are its advantages & disadvantages? 6
- (b) Give structure of C++ program with suitable example. 9

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2. (a) Define data members, member functions, private and public members with example. 8
- (b) Differentiate between Constructor and Destructor with the help of suitable example. <http://www.mgkvponline.com> 7
3. (a) What is copy constructor? Explain the concept of constructor overloading. 6
- (b) What are abstract classes? Explain with suitable example. 9
4. (a) Write a program in C++ which demonstrates the use of inheritance. 9
- (b) What do you understand by function returning a pointer? Give any suitable example to support your answer. 6

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5. (a) Write a program in C++ to exchange values between two classes using the concept of friend function. 10

(b) What is the significance of scope resolution operator (::)? Explain with suitable example. 5

6. (a) Explain various looping control structures available in c++ with example. 6

(b) What do you mean by polymorphism? Differentiate between overloading and overriding. 9

7. Write a program in C++ to read text file and perform following operation.

(a) Display count of character in file 7.5

(b) Display count of new line in file 7.5

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8. Write short notes on **any three** of the following: 5×3

(a) Inline function

(b) Data Hiding

(c) Namespaces

(d) Template functions