Roll No. .

BCA–301(N)

B. C. A. (Third Semester)
EXAMINATION, Dec., 2019

(New Course)

Paper First

OBJECT ORIENTED PROGRAMMING USING C++

Time : Three Hours]　　　　　[Maximum Marks : 75

Note : Attempt questions from all Sections as directed.

Inst.　:　The candidates are required to answer only in serial order. If there are many parts of a question, answer them in continuation.

Section—A

(Short Answer Type Questions)

Note : All questions are compulsory. Each question carries 3 marks.

1.　(A)　What is a class ? How does it accomplish data hiding ?

　(B)　Explain function overloading with the help of an example.

　(C)　What is access specifier in C++ ?

　(D)　What is the role of new and delete operator in C++ ?

　(E)　Explain Destructor with a suitable example.

　(F)　Write a program to explain single inheritance.

　(G)　What is inline function ? Explain with example.

　(H)　Describe the concept of polymorphism with its type.

　(I)　What is stream in C++ ? How does it work for C++ ?

Section—B

(Long Answer Type Questions)

Note : Attempt any *two* questions. Each question carries 12 marks.

2.　(a)　Discuss all the basic concepts of object oriented programming.

　(b)　What is operator overloading ? How is it used in C++ ?

3.　What is constructor ? Explain the types of constructor with suitable examples.

4.　Define a class to represent a book in library. Include the following members :

Data members :

(i)　Book number

(ii)　Book name

(iii)　Author

(iv)　Publisher

(v)　Price

(vi)　No of copies

(vii)　No. of copies issued

Member functions :

(i)   To assign nitial values

(ii)   To issue a book after checking for its availability

(iii)   To return a book

(iv)   To display book information

5.   Define of the following :

(a)   Aggregation

(b)   Composition

(c)   Classification

(d)   Class hierarchy

(e)   Static data member

Section—C

(Long Answer Type Questions)

Note : Attempt any *two* questions. Each question carries 12 marks.

6.   (a)   What is multiple inheritance ? Explain with example.

(b)   Discuss the problem of ambiguity and how is it resolved ?

7.   What is Virtual Function ? How is it differ from virtual base class ?

8.   Describe the concept of exception handling with its mechanism.

9.   (a)   Discuss the template class and template function.

(b)   What are the different types of file opening modes ?

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