III Semester B.C.A. Degree Examination, November/December 2016
(CBCS) (2015-16 and Onwards)
COMPUTER SCIENCE
BCA 303 : Object Oriented Programming using C++

Time : 3 Hours
Max. Marks : 70

Instruction : Answer all Sections.

SECTION – A

I. Answer any ten questions. (10x2=20)
   1) State any four differences between C and C++.
   2) Why do we require const qualifier give example?
   3) What is scope resolution operator?
   4) What is default constructor?
   5) What is the role of EOF?
   6) What is class template?
   7) Explain Dynamic Binding.
   8) Define pure virtual function.
   9) Define stream.
   10) What is the use of file pointer?
   11) Define Exception Handling.
   12) What is destructor? Explain.

SECTION – B

II. Answer any five questions : (5x10=50)
   13) a) Explain the characteristics of oops.
       5
       b) Describe any three Manipulators.
       5
   14) a) Explain function overloading with example.
       5
       b) Write a program to perform addition of two matrices using operator overloading.
       5

P.T.O.
15) a) What are access specifiers used for? Explain the concept of protected access specifier.
b) Write a note on class templates.

16) a) What are default arguments? How they are passed to functions?
b) Write a program to show returning current object using “this” pointer?

17) a) Explain different types of polymorphism?
b) Write a program to swap two numbers using friend function.

18) Explain different types of inheritances with example.

19) a) Explain inline function and illustrate the same with an example?
b) Write a program to calculate area and circumference of circle using inline function.

20) Write short note on:
   a) Data Hiding
   b) Storage classes
   c) Seekg ( ) and seekp ( ) functions
   d) Virtual Base class.
III Semester B.C.A. Degree Examination, Nov./Dec. 2015  
(Y2K14 Scheme) (CBCS)  
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SECTION - A

I. Answer any ten questions: (10x2=20)
1) Define polymorphism. How is it accomplished in C++?
2) What are keywords? Mention any two.
3) Why do we require const Qualifier?
4) What is the use of scope resolution operator in C++?
5) List the operators which cannot be overloaded.
6) Define constructor.
7) What are the advantages of operator overloading?
8) Define base and derived class.
9) What are templates?
10) Define pure virtual functions.
11) What is the use of this pointer?
12) Define stream.

SECTION - B

II. Answer any five questions: (5x10=50)
13) a) What are inline functions? List its advantages and disadvantages.  
    b) Explain any five basic concepts of oop.
14) a) Define Manipulators. Explain with examples any three manipulators.  
    b) What is a friend function? Explain with a suitable example.
15. a) What are access specifiers used for? Explain the concept of protected access specifier.
   b) Explain the concept of static members of a class with examples.
16. a) List the characteristics of a constructor.
   b) Write a C++ program to illustrate the concept of constructor overloading.
17. a) What are the rules followed to overload an operator in C++?
   b) Write a C++ program to explain the concept of unary operator overloading.
18. a) Explain different types of inheritance with examples.
   b) Explain in detail the types of polymorphism in C++.
19. a) Write a C++ program to sort elements using templates.
   b) What is exception handling? Exception how does it differ from error? Explain the different blocks in exception handling mechanism.
20. a) Explain seekg() and tellg() functions.
   b) Write a program to show returning current object accessing member data of current object and returning values of object using this pointer.