III Semester B.C.A. Degree Examination, November/December 2018  
(F+R) (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. \(10 \times 2 = 20\)

1) Mention any four differences between C and C++.

2) What are objects and how they are created?

3) Mention the uses of scope resolution operator.

4) Define constructor.

5) Write the syntax of operator function.

6) Mention the memory allocation operators in C++.

7) List the operators which cannot be overloaded.

8) Define inheritance.

9) Differentiate between function overloading and overriding.

10) Define stream.

11) What are templates?

12) Give the general syntax of cin and cout statements.

P.T.O.
II. Answer any five questions. (5x10=50)

13) a) Explain any five basic concepts of Object Oriented Programming (OOP).

   b) What is an inline function? Write an inline function to find absolute value of a number.

14) a) Briefly explain function with default arguments.

   b) What is a friend function? Explain with a suitable example.

15) a) Give the general form of a class and illustrate access specifiers.

   b) Define constructor. Explain any three different types of constructors.

16) a) Define polymorphism. Discuss different types of polymorphism.

   b) Write a C++ program to add two complex numbers by overloading '+' operator.

17) Explain different types of inheritance with suitable examples.

18) a) Define pure virtual function. Give an example.

   b) What is exception handling? Explain the different blocks in exception handling.

19) a) Explain function template with its general form.

   b) Write a function template to sort a set of elements.

20) Write a short note for the following:

   a) Input and output streams.

   b) ifstream class.

   c) File opening modes.
III Semester B.C.A. Degree Examination, November/December 2017  
(CBCS) (F+R)  
(2015 – 16 & Onwards)  
BCA 303 : OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours                              Max. Marks : 70

Instruction : Answer all the Sections.

SECTION – A

Answer any ten questions : (10×2=20)

1. Explain manipulators in C++.
2. Describe static data members.
3. What is function prototype ?
4. What are access specifiers ?
5. Explain scope resolution operator in C++.
6. What is destructor ?
7. List out the operators which cannot be overloaded.
8. Define virtual base class.
9. What is the role of this pointer ?
10. What is an exception in C++ ?
11. What are input and output streams ?
12. Differentiate between seekg() and seekp() functions.
SECTION – B

Answer any five questions. (5×10=50)

13. a) Explain basic concepts of OOPs in detail.  
   b) Illustrate the use of function overloading with example.  

   b) Demonstrate the usage of classes and objects with any example.  

15. a) Explain friend function with example.  
   b) Describe types of constructors in detail.  

16. a) Demonstrate the usage of unary operator overloading with an example.  
   b) Explain data conversions in detail.  

17. Explain various types of inheritances with suitable examples.  

18. a) Write about virtual functions in C++ with example.  
   b) Explain function templates in C++ with suitable examples.  

19. a) Demonstrate the use of try and catch blocks in C++.  
   b) Explain the unformatted I/O operations of streams in C++.  

20. a) Explain file pointers and file modes.  
   b) Write a program to prepare shopping lists using arrays of objects.
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.
       b) Describe any three Manipulators.
   14) a) Explain function overloading with example.
       b) Write a program to perform addition of two matrices using operator overloading.

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 inheritance 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)
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 : (10×2=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 : (5×10=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.

P.T.O.
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 fseek() and ftell() functions.
    b) Write a program to show returning current object accessing member data of current object and returning values of object using this pointer.