



UN – 313

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. 4
- b) Explain any five basic concepts of oop. 6
- 14) a) Define Manipulators. Explain with examples any three manipulators. 6
- b) What is a friend function ? Explain with a suitable example. 4

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- 15) a) What are access specifiers used for ? Explain the concept of protected access specifier. 6  
 b) Explain the concept of static members of a class with examples. 4
- 16) a) List the characteristics of a constructor. 4  
 b) Write a C++ program to illustrate the concept of constructor overloading. 6
- 17) a) What are the rules followed to overload an operator in C++ ? 4  
 b) Write a C++ program to explain the concept of unary operator overloading. 6
- 18) a) Explain different types of inheritance with examples. 4  
 b) Explain in detail the types of polymorphism in C++. 6
- 19) a) Write a C++ program to sort elements using templates. 4  
 b) What is exception handling ? Exception how does it differ from error ? Explain the different blocks in exception handling mechanism. 6
- 20) a) Explain seekg() and tellg() functions. 4  
 b) Write a program to show returning current object accessing member data of current object and returning values of object using this pointer 6

SECTION - B

II. Answer any five questions.

- 13) a) What are inline functions ? List its advantages and disadvantages. 4  
 b) Explain any five basic concepts of copy. 6
- 14) a) Define Manipulators. Explain with examples any three manipulators. 6  
 b) What is a friend function ? Explain with a suitable example. 4