

Second Year B.C.A (Semester - I) Examination
Paper - 15BCA202

Object Oriented Programming Using C++

Time : Three hours]

[Full Marks - 60

- N.B. :**
- i) All questions carry equal marks
 - ii) Question No. 1 is compulsory
 - iii) Assume suitable data wherever necessary.
 - iv) Illustrate your answer necessary with the help of neat sketches
 - v) Use Blue/Black ink/refill only for writing the answer book.

Q.1 Choose correct alternatives. 5

- a) In ____, the code associated with function call is not known until its call a runtime.
 - i) Static binding ii) Call binding
 - iii) Dynamic binding iv) Final binding
- b) The reference variable must be preceded with a ____ symbol.
 - i) * ii) &
 - iii) # iv) \$
- c) A non member function which can access the member of a class must be declared as ____ with that class.
 - i) Public ii) Linked
 - iii) Bound iv) Friend
- d) Which of the following operator is used for allocating memory dynamically.
 - i) new ii) alloc
 - iii) create iv) set
- e) Which of the following stream function is used to clear the contents of the buffer.
 - i) clear ii) flush
 - iii) delete iv) clean

- Q.2 a) Describe the enumerated data type in C++ with proper example. 6
 b) What is encapsulation? Explain with proper example. 5

OR

- Q.3 a) Write a program to exchange the values of two variables using reference variables. 6
 b) Describe the built in data types in C++. 5
- Q.4 a) What is inline function? State the rules for defining inline function. 6
 b) Describe explicit type conversion with the help of suitable example. 5

OR

- Q.5 a) Write a function `simp-int ()` which accepts three parameters `pramt`, `rate`, `years` and calculates simple interest. The function should be defined using default arguments. 6
 b) Explain the switch statement in C++. with suitable example. 5

- Q.6 a) Write a C++ program to explain the concept of copy constructor. 6
 b) Describe the ways for defining a member function with suitable example. 5

OR

- Q.7 a) What is default constructor? Explain with suitable example. 6
 b) Explain the nesting of member function with suitable example. 5

- Q.8 a) Write a program to overload a binary '+' operator for concatenating two strings. 6
 b) Explain the dynamic memory allocation in C++. 5

OR

- Q.9 a) What is 'this' pointer? Explain with suitable example. 6
 b) What is Inheritance? Explain various visibility modes in inheritance. 5
- Q.10 a) Create a class "test1" with suitable members. Derive a class "test2" from "test1" write a program to access the members of class "test2" using pointer. 6
 b) Describe various modes for opening a file. 5

OR

- Q.11 a) Write a program which reads the contents of a file "f1.txt" and copy them to another file "f2.txt" 6
 b) What is a virtual function? State the rules for defining a virtual function. 5
