Bachelor of Computer Applications 2nd Semester

1048

OBJECT ORIENTED PROGRAMMING USING C++

Paper–BCA-16-204

Time Allowed : Three Hours]   [Maximum Marks : 65

Note :–   Attempt **one** question from each section and the entire compulsory question. **All** questions carry equal marks.

SECTION–A

1.   Object oriented programming allows the division of programs into objects that represent real world entities. Justify this statement along with its principal advantages.

13

2.   Discuss the following :

(a)   Reference variables

(b)   Distinguish between new operator and malloc()

(c)   Default arguments.

4,4,5

SECTION–B

3.   Why can a friend function be not called using the object of the class to which it is friend ? Explain its characteristics along with suitable examples.

13

4. (a) Demonstrate an instance where operator overloading should be used for string manipulation operations. 6

 (b) Write a program to achieve the following – Create a class 'account' to withdraw and deposit money, and to display balance amount. Use constructor to set initial balance. Assume data members and member functions as necessary. 7

SECTION–C

5. Define inheritance. What is the effect of inheritance on the visibility of members ? Explain the concept of hybrid inheritance with a program. 13

6. How can we execute different versions of the same function with respect to polymorphism ? What are the implications of making a virtual function pure ? 13

SECTION–D

7. Describe the exception handling mechanism with a practical example. When do we use multiple catch handlers ? 13

8. Distinguish between opening a file using constructor and using open () method. List the stream classes for file operations. 13

SECTION–E

(Compulsory Question)

9. (a) Inline functions 3

 (b) Operators that cannot be overloaded 3

 (c) Nesting of classes 3

 (d) Conversion from user to basic defined type. 4