

Roll No.

Total No. of Questions : 9]
(2111)

[Total No. of Printed Pages : 4

**BCA (CBCS) RUSA IIIrd Semester
Examination**

4516

OBJECT ORIENTED PROGRAMMING WITH

C++

BCA-0304

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt *five* questions in all. Question No. 1 (Part A) is compulsory containing 10 fill in the blanks of 1 mark each and *five* short answer questions of 4 marks each. Select *one* question each from Parts-B, C, D and E.

Part-A

(Compulsory Question)

1. Fill in the blanks :

- (i) The ability of a function or operator to act in different ways of different data types is called

C-580

(1)

Turn Over

(8)

- (ii) If class A inherits its properties from class B, then A and B are known as class and class respectively.
- (iii) member function can never be accessed by inherited classes.
- (iv) A function with no return type is declared as
- (v) Variable of a class is called Field.
- (vi) OOPs follow approach in program design.
- (vii) A method does not return a value.
- (viii) A is a special member function whose task is to initialize the objects of its class.
- (ix) An is a instance of a class.
- (x) In function overloading, two functions can have the same name in a program. 1×10=10

Short answer type questions (25 to 50 words) :

- (i) What is the difference between equal to ($=$) and Assignment operator ($=$) ?

- (12)
- (ii) Explain scope resolution operator.
 - (iii) What are the comments in C++ ?
 - (iv) What is class ?
 - (v) What is the role of protected access specifier ?
Explain with example.

4×5=20

Part-B

Unit-I

- 2. Explain various characteristics of object oriented programming language.
- 3. (a) Explain the basic structure of C++ program with example.
- (b) Define variable in C++. Explain with example.

10

6+4=10

Part-C

Unit-II

- 4. (a) Write a program in C++ to print first 10 natural numbers.
- (b) Explain if-else and switch statements with the help of example.
- 5. (a) Explain structures. How the structure members are accessed.
- (b) Explain the concept of overloaded function with the help of example.

5+5=10

5+5=10

Part-D

Unit-III

6. (a) Define Constructors. What is the use of a constructor ? Explain. (8)
- (b) Describe objects and classes. What are the components of a class ? 5+5=10
7. (a) Explain Array. How the elements of an array can be accessed ? Explain with example.
- (b) Explain Multidimensional arrays. How an array can be initialized ? Describe. 5+5=10

Part-E

Unit-IV

8. (a) Define operator overloading. Explain the limitations of increment operator.
- (b) Explain the pitfalls of operators overloading and conversion. 5+5=10
9. (a) Explain the concept of derived class and base class. (8)
- (b) Define Inheritance. Explain its types. 5+5=10