

Total No. of Questions : 9]
(1107)

[Total No. of Printed Pages : 4

**B.C.A. UG (CBCS) RUSA IIIrd Semester
Examination**

3844

**OBJECT ORIENTED PROGRAMMING WITH C++
BCA-304**

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 Part B, C, D and E.

Part-A

(Compulsory Question)

1. Fill in the blanks :

(i) In OOP a ^{class} is a combination of data and function.

(ii) ^{m.f.} are also known as methods that are used to perform task on data created in a object *or* class.

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(1)

Turn Over

- (iii) A ^{object} is an instance of a class.
- (iv) The wrapping up of procedures and data together is called ^{data encaps.}
- (v) Preprocessor directives are also called as directives.
- (vi) ⁺⁺ means that the value of the variable is incremented before the value is used in the context.
- (vii) The priority given to the operator is called ^{op. prec.}
- (viii) ^{loop} provides a mechanism of execute same sequence of instructions repeatedly until a condition is reached.
- (ix) With protected inheritance, the public and protected members become ^{protected} and private members stay ^{private}
- (x) Multiple inheritance allows to create a derived class that inherits properties from ^{more than one} than one base class.

1×10=10 ✓

Short Answer Type Questions (25 to 50 words) :

- (xi) Define scope resolution operator and also its purpose.

void operator ++()
{ count++; }

(xii) What is the role of special operator.(dot) ?

(xiii) Differentiate how switch statement differ from ladder if statement.

(xiv) With the help of examples differentiate between unary, binary and ternary operator.

(xv) What is function prototype ? Explain. $5 \times 4 = 20$ 20

Part-B

(Unit-I)

2. What are the main advantages and disadvantages of object oriented programming language ? Also write main points of difference between C and C++. $2 \times 5 = 10$

3. Explain the following terms :

(i) Implicit and explicit conversion

(ii) Modulus operator

(iii) Type bool

(iv) SETW Manipulator $4 \times 2.5 = 10$

Part-C

(Unit-II)

4. (i) Write a program to find whether a number is a prime or a composite number.

(ii) Differentiate between break and continue statement. $2 \times 5 = 10$

5. (i) Differentiate between pass by value and pass by reference.

(ii) Write a program to find the factorial of a number using user defined function.

2×5=10

Part-D

(Unit-III)

6. Explain the following terms :

(i) Constructor

(ii) Pointer

(iii) Structure

(iv) Union

4×2.5=10

7. Write the inbuilt string handling function to concatenate two strings. Also write a program for string concatenation.

2×5=10

Part-E

(Unit-IV)

8. What is operator overloading ? Write a program to overload Postfix Increment operator C++.

2×5=10

9. With the help of program define multiple inheritance. What is ambiguity problem in multiple inheritance ? Explain.

2×5=10