PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
PICA
BCA 2018–19 Mid Semester Examination

Semester: 3
Subject Code: 05101203
Subject Name: Object Oriented Concepts and Programming

Date: 4/9/18
Time: 10:00-12:00
Total Marks: 40

Instructions:
1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1   Answer the following.   [10]

(a)   1. Define object.   [3]

2. What is POP?

3. Explain destructor.

(b)   1. Write down the output of this program.   [7]

```
int main()
{
        int a = 5;

        cout << sizeof(++a);

        cout << a;

        return 0;
}
```

2. _____ operator cannot be used in friend function.

3. In C++ default return type for all the functions is _____.

   a)int   b)void   c)float   d)none of these

4. In which type does the enumerators are stored by the compiler?

   a) string   b) integer   c) float   d) none of the mentioned

5. The wrapping up of data and functions into a single unit is called_____.

   a) inheritance   b)encapsulation   c)data hiding   d)polymorphism

6. Objects communicate with one another by using _____

   a)message passing   b)operator overloading   c)inheritance   d)both a & b

7. The >> operator is known as _____

   a)put to   b)get from   c)extraction   d)both b & c

Q.2 Answer the following. [10]

(a) 1. Find the error and write down the correct code. [4]

```
#include <iostream.h>
#inlude<conio.h>
class construct
{
public:
   int a;
private:
   void construct()
   {
      a = 10;
   }
};

int main()
{
      construct c;
      cout << "a: "<< c.a;
      getch();
      return 0;
}
```

2. Write down the example of Polymorphism.

(b) 1. Write down the differences between constructor and Destructor. [6]

2. Define "inline" Function with example.

Q.3 Attempt any TWO. [10]

1 Explain private and public member function with example. [5]

2 What is friend function? Explain characteristics of friend function with example. [5]

3 Write down the program to find the difference between two numbers using parameterized [5]
   constructor.

Q.4 Answer the following. [10]

(a) Explain different types of looping and controlling structures available in cpp. [5]

(b) Explain "call by value" and "call by reference" with examples. [5]

OR

(b) Write OOPs Concepts in detail. [5]