 FE Sem-I (R) Dec 2011

CP-I

Con. 5901-11. **MP–2458**

(3 Hours) **[Total Marks : 100**

N.B. : (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of **six** questions.

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2)Attempt any four questions out of six questions

1.a) What are the features of object oriented programming? (10)
b) Find the output of the following: (10)
i)
```
main()
{
    int c[ ]={2.8,3.4,4,6.7,5};
    int j,*p=c,*q=c;
    for(j=0;j<5;j++)
    {
        cout<<*c;
    }
    for(j=0;j<5;j++)
    {
        cout<<*p;
        ++p;
    }
}
```
ii)
```
main()
{
    int i=-1,j=-1,k=0,l=2,m;
    m=i++&&j++&&k++||l++;
    cout<<i<<j<<k<<l<<m;
}
```
iii)
```
main()
{   int c=- -2;
    cout<<"c="<<c;
}
```

2a) Write a program to generate the following pattern: (10)

```
1
121
12321
1234321
12321
121
1
```

b) i) Explain call by value and call by reference with the help of example. (5)
ii) Write a program to print prime numbers from 1 to 200. (5)

3. a) Write a program to sort an array in ascending order. (10)
b) What is operator overloading? Declare a class Distance with feet and inches. Overload binary (+,-) and unary(++,--). (10)

4. a) What is recursion? Write a program to reverse a number using recursive function. (10)
b) Write a program to implement multilevel inheritance. (10)

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5. a) Declare a structure product that will describe the following information- name , weight and price of the product. Develop a program that will store information of 25 products using structure. Also display names in the descending order of price. (10)

b) Differentiate between: (10)

1) Constructor and Destructor
2) Break and continue
3) Function overloading and function overriding

6. a) Write a program to perform matrix multiplication. (10)

b) Write a program to implement string copy with the help of pointers. (10)

7.Write short notes on the following : (Attempt any four) (20)

a) Friend function
b) Virtual Base class
c) Static data member and function
d) Access Specifiers
e) Virtual functions

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