



**Term Test I**

**Semester:II**  
**Subject: SPA**

**Total Marks: 30 Marks**

**Q.1 a) What do you mean by an algorithm? Which points you should consider while developing an algorithm? Explain with suitable example. (6M)**

**OR**

**Determine the type of triangle, give its sides(i.e. isosceles, equilateral) Is the above problem definition is complete? If not, make this problem definition complete and write a program to implement it.**

**Q.2 a) Write an output for the following: (6M)**

```
#include<stdio.h>
void main()
{
    int x=10,y,z;
    z=y=x;
    y=---x;
    z==x--;
    x=---x-x--;
    printf("x=%d, y=%d, z=%d",x,y,z);
}
```

**OR**

**Write a program to reverse a 3-digit number (without using loop)**

**b) Explain the purpose of following standard library functions (6M)**  
i) floor() ii) pow() iii) sqrt() iv) ceil() v) fabs  
vi) exp()

**OR**

**Write a program to print sum of squares of digits of 3 digit number**

**[P.T.O.]**

Q.3 a) Give difference between while and do... while (6M)

OR

Write a program to display Armstrong numbers between 1 to 1000.

b) Write a program to print pattern (6M)

```

                1
              1  2  A
            1  2  3  B  A
          1  2  3  4  C  B  A
```

OR

Explain following keywords i) break ii) continue iii) goto.

*while (n!=0)*