SIES Graduate School of Technology

UNIVERSITY TEST I EXAMINATION FEB.-2015

(First half of 2015)

Class: FE SEM II — Max Marks: 20

Subject: SPA — Time: 1 hour

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1) Question No.1 is compulsory.
2) Attempt any ONE questions out of remaining TWO questions.

1.

a) Write an algorithm and flowchart to calculate roots of quadratic equation. [06]

b) Determine the type of triangle, given its sides (i.e. isosceles, scalene, and equilateral). Is the above problem definition complete? If not, make this problem definition complete. [04]

2.

a) Write the output for following program :- [05]

```
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);
}
```

b) Write a program to generate following patterns.

```
    *
  *   *
*   *   *
  *   *
    *
```

3. Write a program to generate following patterns. [05]

```
5
4 4
3 3 3
2 2 2 2
1 1 1 1 1
```

2) Write a program to display Armstrong numbers between 1 to 100. [05]