

SE 302 SOFTWARE TESTING

Time: 1:30 Hours

Max. Marks: 30

Note: All Questions are compulsory

1. There are two limitations in software testing:

- a) Input domain is too large to test
- b) Too many paths in the program

Justify these limitations with the help of suitable examples.

(3)

2. Consider the following points based on faculty appraisal and the development system of a university:

(4)

Points Earned	University view
1 – 6	Work hard to improve
6 – 8	Satisfactory
8 – 10	Good
10 – 12	Very Good
12 – 15	Outstanding

Identify the equivalence class test cases for output and input domain.

3. A customer requests a cash withdrawal. If PIN number is incorrect, then error message "Incorrect PIN" will be displayed. Money will be withdrawn only on inserting correct PIN. One of the business rules for the ATM is that the ATM machine pays out the amount if the customer has sufficient funds in their account or if the customer has the credit granted. Construct cause effect graph and design decision table. Write test cases accordingly.

(5)

4. Consider the following program and draw the program path graph and DD path graph. Also find out independent paths and cyclomatic complexity by all methods.

(5+5=10)

P.T.O.

```
void main ()
{
    int x, y;
    scanf ("%d \n", &x);
    scanf ("%d \n", &y);
    while (x != y)
    {
        if (x > y)
            x = x - y;
        else y = y - x;
    }
    printf ("x = %d", x);
}
```

5. Consider the program given in Q4, derive test cases so that (i) 100% branch and (ii) 100 % path coverage is achieved. (4+4=8)

END