

IT / SWT & QA / VIII

Sem. VIII / I.T (CBGS) / SW Testing &

Q. P. Code: 13496

(Time: 03 Hours)

Quality Assurance / 12-05-17
Marks: 80

- Note: 1) Question no. 1 is compulsory.
 2) Solve any three out of remaining five questions.
 3) Assume suitable data wherever necessary.



- Q.1 a) How does testing help in producing quality software? (05)
 b) What are the types of errors detected by black-box testing (05)
 c) Brief about Function Point Metric for software testing. (05)
 d) Differentiate system testing and acceptance testing. (05)
- Q.2 a) What is software testing? Describe software testing model with a neat diagram. (10)
 b) Why do we need integration testing? Explain various approaches in integration testing. (10)
- Q.3 a) Discuss the benefits of verification and validation in a project. (10)
 b) What is static testing? Explain the types of static testing. (10)
- Q.4 a) Brief about Software Quality Management (10)
 b) What is the need for software measurement? Discuss the various types of software metrics. (10)
- Q.5 a) What are the challenges in testing web based softwares? (10)
 b) Consider the following program segment: (10)

```
#include <stdio.h>
main()
{
  float x, y, z;
  clrscr();
  printf("enter the three variables x, y, z");
  scanf("%f %f %f",&x, &y, &z);
  if(x > y)
  {
    if(x > y)
```

Turn Over

```
        printf("x is greatest");
    else
        printf("z is greatest");
}
else
{
    if(y > z)
        printf ("y is greatest");
    else
        printf("z is greatest");
}
getch();
}
```

1. Draw the decision-to-decision graph or DD graph for the above program.
2. Calculate the cyclomatic complexity of the program using all the methods.
3. List all the independent paths.
4. Design test cases from independent paths.

Q.6 Write short notes on any two.

(20)

- a) Object-oriented Testing.
 - b) Regression Testing
 - c) Bug classification based on Software Development Life Cycle (SDLC)
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