COLLEGE OF ENGINEERING,PUNE

End Semester Examination

B. Tech Final Year (Information Technology)

CT 411-Software Testing and Quality Assurance

Year: 2013-14
Duration: 3 hrs

Semester: VII
Max.Marks:- 60

GROUP A
Multiple Choice Type Questions.All Questions are compulsory.

Choose the correct alternatives from the following and justify your answer
with suitable explaination:-   (5 Marks)

1.The testing technique that requires devising test cases to demonstrate
that each program function is operational is called
a. Black-box testing
b. Glass-box testing
c. Grey-box testing
d. White-box testing

2.What types of errors are missed by black-box testing and can be
uncovered by white-box testing ?
a. Behavioral errors
b. Logic errors
c. Performance errors
d. Typographical errors
e. Both b and d

3.The cyclomatic complexity metric provides the designer with information
regarding the number of
a. Cycles in the program
b. Errors in the program
c. Independent logic paths in the program
d. Statements in the program

4.Equivalence testing divides the input domain into classes of data from
which test cases can be derived to reduce the total number of test cases
that must be developed.
a. True
b. False

5Testing OO class operations is made more difficult by
a. Encapsulation
b. Inheritance
c. Polymorphism
d. Both b and c

GROUP B

Short Answer Questions.Attempt any four questions.

(10*4 Marks)

1.100% Branch coverage leads to 100% statement coverage.Do you agree or disagree with this statement.Justify your answer.

2.Define need of Reviews in testing process.Explain different types of reviews with suitable examples.

3.Explain in detail Ishikawa's seven quality tools.

4.What is good data? How to define,store,collect and extract data.

5.What is defect,defect rate?Explain in detail defect life cycle.

GROUP C

Long Answer Questions

1.Differentiate between the following :-   (10 marks)
   a.Functional Testing & Structural Testing
   b.Alpha Testing & Beta testing

2.Write note on Goal-Question Metric model.   (5 marks)

OR

(15 marks)

1."Tru-cart" is a famous shopping mall spreaded Globally. Shopping mall wants to automate the following shopping functionalities & should be made available on-line (i.e. web-based).

Functionalities :
a) Maintaining user details by giving proper authentication.
b) Maintaining Items of different Departments, like music, clothing and many more.
c) Maintaining online customer order.
d) Providing facility to customer to make on-line payment towards order.
     Tru-cart' is using third party payment gateways of different partners like ICICI,HDFC etc.
Being a Test-leader, design test plan, considering scope of the testing strategies, coverage, environment and other design details.