

END TERM EXAMINATION
FIFTH SEMESTER (BCA),
DECEMBER 2014
SOFTWARE TESTING

Time 3 hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory. Select one question from each unit.

Question 1: Attempt any five of the following: (5×5 =25)

- (a) What is software testing? Is it possible to do complete testing?
- (b) Explain error, fault and failure.
- (c) What are Test cases? Elaborate with an example.
- (d) What are the limitations of testing?
- (e) Explain the difference between alpha and beta testing.
- (f) Differentiate between black box and while box testing.

UNIT-I

Question 2: What is graph theory? How is it useful in testing? Explain in detail with suitable examples. (12.5)

Question 3:

- (a) What are the essentials of software testing? Why software testing is hard? (6.5)
- (b) What are the various principles of software testing? (6)

UNIT-II

Question 4: Consider a program for classification of a triangle. Its input a triple of positive integers (say a,b,c) form interval [1,100]. The output may be one of the following: [Scalene, Isosceles, Equilateral, Not a triangle, invalid inputs]. Find all du-paths identify those du-paths that are definition clear. (12.5)

Question 5:

- (a) Discuss Cause Effect graphing technique with an example. (6.5)
- (b) What is cyclomatic complexity? Explain with the help of an example. (6)

UNIT-III

Question 6: Define Regression Testing. Is it necessary to perform? How various regression testing techniques differ from each other? Explain in detail all the variants of regression testing techniques. (12.5)

Question 7:

- (a) What are the various levels of testing? Elaborate with suitable example. (6.5)
- (b) What is debugging? Explain the debugging cycle and its role in testing process. (6)

UNIT-IV

Question 8: What is object-oriented testing? How is it different from simple testing and GUI testing? Explain various involved in it with examples. (12.5)

Question 9: Explain in detail the various challenges and strategies involved in testing internet applications. (12.5)