

END TERM EXAMINATION

FIFTH SEMESTER [BCA] NOV.-DEC. - 2019

Paper Code: BCA307

Subject: Software Testing

Time: 3 Hours

Maximum Marks: 75

Note: Q. No. 1 is compulsory. Attempt one question from each unit.

- Q1 Attempt any five of the following:- (5x5=25)
- a) What is exact definition of Software Testing? Explain some failures of Software testing.
 - b) Define the following terms: Error, Fault, Failure, Test case and Test suite with examples.
 - c) Why developers are not good Testers? Justify with reasons.
 - d) Explain the V-shaped software life cycle model of testing.
 - e) What is slice-based testing? Give guidelines of slicing.
 - f) Differentiate debugging and testing.
 - g) Explain GUI Testing.

SECTION I

- Q2. a) Differentiate White Box and Black box testing. (7)
b) What are the limitations of software testing? Why it is so hard? (5.5)
- Q3.a) Explain Principles of Software Testing in detail. (7)
b) Differentiate peer-review, code inspections and walk through. (5.5)

SECTION II

- Q4. Consider a program for classification of triangle. Its input is a triple of positive integers (a,b,c) from interval [1,100]. The output may be one of the following [Scalene, Isosceles, Equilateral, Not a triangle, invalid input]. Give DD path and Find all du-paths, identify those du-paths that are definition clear (dc). (12.5)
- Q5. a) What is Cyclomatic Complexity? Give three different ways to compute it with example. (5.5)
b) What is Cause-Effect Graphing Technique? Explain it with Example. (7)

SECTION III

- Q6.a) Explain various levels of testing? Explain system testing in details. (8)
b) What is regression testing? When & how it is performed. (4.5)
- Q7.a) What is debugging? Explain various debugging approaches of software Testing. (8)
b) Differentiate Alpha and beta testing. (4.5)

SECTION IV

- Q8. What is object oriented testing? Give various techniques. Explain Class testing also. (12.5)
- Q9. Explain in detail the various challenges and strategies involved in web based testing in Internet applications. (12.5)
