

(Please write your Exam Roll No.)

Exam Roll No.

END TERM EXAMINATION

FIFTH SEMESTER [BCA] NOVEMBER-DECEMBER 2017

Paper Code: BCA-307

Subject: 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.**

- Q1 Attempt **any five** of the following: **(5x5=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 white box testing.

Unit-I

- Q2 What is graph theory? How is it useful in testing? Explain in detail with suitable examples. **(12.5)**
- Q3 (a) What are the essential of software testing? Why software testing is hard? **(6.5)**
- (b) What are the various principles of software testing? **(6)**

Unit-II

- Q4 Consider a program for classification of a triangle. Its input in 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)**
- Q5 (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

- Q6 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)**
- Q7 (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

- Q8 What is object-oriented testing? How is it different from simple testing and GUI testing? Explain various issues involved it with examples. **(12.5)**
- Q9 Explain in detail the various challenges and strategies involved in testing **(12.5)**