(Please write your Exam Roll No.) *Exam Roll No. .....*

END TERM EXAMINATION

FIFTH SEMESTER [BCA] DECEMBER 2015

Paper Code: BCA307	*Subject: Software Testing (2011 onwards)*
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 and why it is so hard?
(b) What is cyclomatic complexity?
(c) Differentiate between walkthroughs and peer review.
(d) How does V-Model support different types of testing?
(e) What are the different levels of object oriented testing?
(f) Differentiate between top down and bottom up integration.
(g) How security testing helps to develop internet applications?

UNIT-I

Q2 (a) Discus the psychology and economics of software testing. **(6.5)**
(b) Explain the following terms: Test Case, Test Suite, Error, Incidents, Fault and failure **(6)**

Q3 (a) Software testing can be an unending process. What criteria are used to stop testing? **(4.5)**
(b) Explain code inspection and desk checking. **(4)**
(c) Consider a suitable graph ad define the following- **(4)**
(i) Degree of all nodes
(ii) Incidence matrix
(iii) Adjacency matrix

UNIT-II

Q4 (a) What is the significance of boundary value analysis? Consider a program that prompts the user to Input 3 numbers(say x,y,z) and the data type for input parameters ensures that these will be integers greater than 0(zero) and less than or equal to 100. The program should then output the number in ascending order. Design the boundary value test cases. **(6)**
(b) What is Cause Effect Graphing Technique? Discuss the basic Cause Effect Graph symbols and the constraints used in this technique. **(6.5)**

Q5 (a) What is Decision Table Based testing? Explain with the help of an example. **(4.5)**
(b) Write a program to determine the nature of roots of a quadratic equation. Its input a triple of positive integers (say a, b, c) and value may be from interval [0, 100]. The output may be one of the following words:- **(8)**
(i) Not a quadratic equation
(ii) Real roots
(iii) Imaginary roots
(iv) Equal roots
Draw the flow graph and DD path graph.

P.T.O.