R13

Code No: 815BE

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA V Semester Examinations, January - 2018
SOFTWARE TESTING METHODOLOGIES

Time: 3 Hours   **Max. Marks: 60**

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a) What is the purpose of testing? List various dichotomies. [4]
  b) Explain how data flow testing is helpful in fulfilling the gaps in path testing. [4]
  c) How to find approximate minimum number of paths? Demonstrate with example. [4]
  d) Differentiate between good state graphs and bad state graphs. [4]
  e) Explain about relations and its properties. [4]

PART - B

5 × 8 Marks = 40

2.a) Discuss about assignment blindness and equality blindness of predicates.
  b) Justify how flowchart is different from control flow graph. [4+4]

OR

3.a) State and explain various path selection rules for path testing.
  b) Explain about various types of structural bugs. [4+4]

4. Discuss the All-Predicates-Uses (APU) and All-Computational-Uses (ACU) strategies of data flow testing with suitable examples. [4+4]

OR

5. Explain transaction flow testing with an example. Discuss about sensitization and instrumentation based on transaction flows. [8]

6. Explain a regular expression and flow anomaly detection methods with examples. Also write their applications and limitations. [8]

OR

7. Demonstrate the steps involved in node reduction procedure. Using this procedure, convert flow graph whose links are labeled into a path expression. [8]

8.a) Describe the procedure for specification validation using KV charts.
  b) Demonstrate the software implementation issues in state testing. [4+4]

OR

9. What is Decision Table? How is a decision table useful in testing? Give example. Also explain about don't care and impossible terms. [8]

10. Write a detailed note on the usage of JMeter and Win-Runner tools. [8]

OR

11. Define graph matrices and evaluate graph matrix with pictorial graph. Also write their applications. [8]

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