

III B. Tech II Semester Regular/Supplementary Examinations, August-2021**SOFTWARE TESTING METHODOLOGIES**

(Common to Computer Science and Engineering, Information Technology)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer **ALL** the question in **Part-A**3. Answer any **FOUR** Questions from **Part-B**

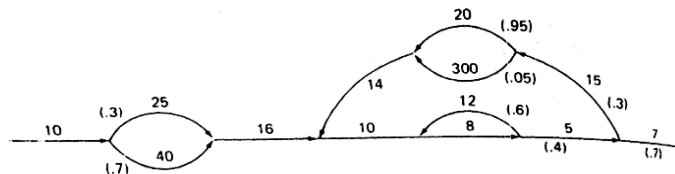
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**PART -A****(14 Marks)**

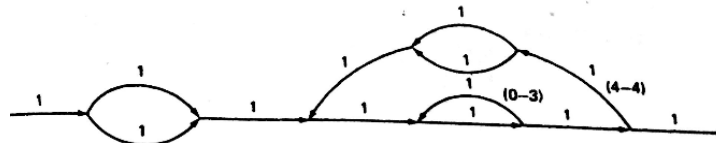
1. a) What is Compound Predicate? Give an example. [2M]
- b) What are the four different states of an object present in data-flow anomaly model? [2M]
- c) Illustrate the distributive law applied for path products and Path sums. [2M]
- d) Differentiate context dependent syntax errors and state dependency errors. [3M]
- e) Define the following: [3M]
  - i) Unreachable state; ii) Dead state; iii) Equivalent states.
- f) What are the tools required for test planning. [2M]

**PART -B****(56 Marks)**

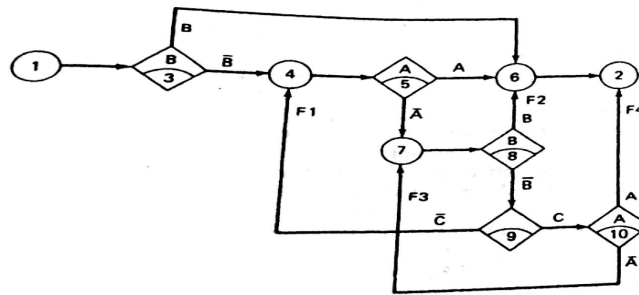
2. a) Draw and explain the Model for testing. [7M]
- b) Analyze the process of testing Multi-Entry/Multi-Exit Routines. [7M]
3. a) Discuss about structural test strategies for control flow graphs. [7M]
- b) What are the rules to be considered for constructing a data-flow model for a control flow graph? Explain. [7M]
4. a) Find the mean processing time for the given flow graph. [7M]



- b) Find the maximum path count for the given flow graph. [7M]



5. a) Discuss about hidden language recognition while exploiting syntax testing. [7M]  
 b) Find out the Boolean equations for the given Flow graph with loops. [7M]



6. a) Discuss about transition bugs in detail. [7M]  
 b) Illustrate the role of matrix representation of graph for testing purpose. [7M]
7. a) What is the difference between load testing and stress testing? Explain. [5M]  
 b) Explain about different windows that are available in Win runner and its usage in testing applications. [9M]

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