

**CMR ENGINEERING COLLEGE: : HYDERABAD  
UGC AUTONOMOUS**

**IV-B.TECH-I-Semester End Examinations (Regular) - November- 2024  
SOFTWARE TESTING METHODOLOGIES**

**(CSE)**

**[Time: 3 Hours]**

**[Max. Marks: 70]**

**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 10 marks and may have a, b, c as sub questions.

**PART-A**

**(20 Marks)**

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| 1. a) List any two goals of testing.         | [2M] |
| b) Define consequences of bugs.              | [2M] |
| c) Define Path testing.                      | [2M] |
| d) What is domain testing?                   | [2M] |
| e) What is path instrumentation?             | [2M] |
| f) Define Alpha and Beta Testing.            | [2M] |
| g) What is Good State graph?                 | [2M] |
| h) Define dead state.                        | [2M] |
| i) Write the Applications of graph matrices. | [2M] |
| j) What is connection Matrix.                | [2M] |

**PART-B**

**(50 Marks)**

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|---|------|
| 2. a) Explain the concept testing blindness and its types with example. | [5M] |
| b) Discuss about of path instrumentation method and its types.          | [5M] |

**OR**

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| 3. Explain about Taxonomy of Bugs with example.   | [10M] |
| 4. Discuss in detail about nice domains and ugly domains with suitable examples and explain domain testing. | [10M] |

**OR**

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| 5. a) What are the restrictions of domain testing? Explain. | [5M] |
| b) How to test two-dimensional domains? Explain.            | [5M] |

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| 6. Explain the four parts of Decision Table and their use in Decision Table based testing. | [10M] |
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**OR**

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| 7. a) Describe lower path count arithmetic with example. | [5M] |
| b) Write motivational overview of logic-based testing.   | [5M] |

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| 8. Differentiate between good state graphs and bad state graphs. Also discuss about finite state machine. | [5+5M] |
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**OR**

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| 9. Explain State graphs, inputs and transition with example. | [10M] |
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| 10. a) What are some situations in which state testing may prove useful? Explain. | [5M] |
| b) What are properties of relations? Explain.                                     | [5M] |

**OR**

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| 11. Explain about Power of matrix along with example. | [10M] |
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