| Part-A (Objective Paper) | | | |
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| Answer all the following Questions (5 Multiple choices & 5 Fill in the blanks). | | Marks: 10X1/2M=5M | |
| S.No | | BTL | CO |
| 1 | The drawback of the decision table is that:<br>A. Insufficient program logic B. No clarity<br>C. Implicit relation to specification D. Low level maintainability | L1 | CO3 |
| 2 | If there are k predicates, the maximum number of possible predicate cases is_____<br>A. 2k B. 2K C. 2k-1 D. 2K-1 | L1 | CO3 |
| 3 | The state graph's elements do not include_____<br>A. states B. input/output C. transitions D. State machines | L1 | CO4 |
| 4 | The first step in implementing the state graph is to_____<br>A. implementation and operation B. input encoding<br>C. output encoding D. state codes | L1 | CO4 |
| 5 | If a matrix column has two or more 1s, the matrix is said to be<br>A. Branch node B. Junction node C. loop<br>D. both (a) and (b) | L1 | CO5 |
| 6 | The simplest type of reasoning is_____. | L1 | CO3 |
| 7 | _____is a table that contains a collection of conditions as well as the actions that go with them. | L1 | CO3 |
| 8 | _____ is the process of turning characters to numbers. | L1 | CO4 |
| 9 | A tabular representation of a state graph is referred to as_____. | L1 | CO4 |
| 10 | A relation that satisfies the reflexive, transitive, and antisymmetric qualities is_____ | L1 | CO5 |

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| Answer all the following Questions (5 Multiple choices & 5 Fill in the blanks). | | | Marks: 10X1/2M=5M |
| S.No | | BTL | CO |
| 1 | ABCD+BCD+CD+AB can be reduced to<br>A. CD+AB B. 1 C. CD D. AB | L1 | CO3 |
| 2 | To reduce Boolean expression, the initial step is to<br>A. Replace identical terms<br>B. Remove parenthesis<br>C. The term containing a variable and its<br>D. Compliment is removed | L1 | CO3 |
| 3 | Bugs that aren't Caused By State Graphs are_____<br>A. State bugs B. Output errors<br>C. Encoding bugs D. None | L1 | CO4 |
| 4 | The state graph depicts_____<br>A. Time B. Sequence<br>C. States D. None | L1 | CO4 |
| 5 | The equivalence connection does not have to be satisfied_____<br>A. reflexive B. symmetric<br>C. Lantisymmetric D. transitive | L1 | CO5 |
| 6 | _____gathers knowledge from knowledge repository or domain such as Engineering law into Database. | L1 | CO3 |
| 7 | The table translator will look for_____of source table and fill in the default rules. | L1 | CO3 |
| 8 | Two states are known as_____ if every series of inputs from one state creates exactly the same sequence of outputs for other states. | L1 | CO4 |
| 9 | Under all conditions, FSM behaves in the_____. | L1 | CO4 |
| 10 | In the node reduction optimization process, the node Of _____ degree should be deleted first. | L1 | CO5 |

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| Answer all the following Questions (5 Multiple choices & 5 Fill in the blanks). | | | Marks: 10X1/2M=5M |
| S.No | | BTL | CO |
| 1 | The number of interchanges for each combination of predicate truth values for n predicates would be<br>A. N(n-1)/2 B. 2n C. N^2 D. N(n-1) | L1 | CO3 |
| 2 | Boolean Algebra expression laws AB =<br>A. A'. B' B. A+B C. A' + B' D. (A+B)' | L1 | CO3 |
| 3 | In the case of a good state graph____<br>A. Bugs are easy to find<br>B. sequence of inputs does not lead to initial state<br>C. Bugs are more D. both a and b | L1 | CO4 |
| 4 | In a graph, the outputs and inputs are divided by____<br>A. *(asterisk) B. /(slash)<br>C. -(eiphen) D. None | L1 | CO4 |
| 5 | When compared to graphs, the advantages of the node reduction approach in matrices is_____<br>A. more methodical in graphs B. error free<br>C. not necessary redrawing of graphs D. all of the above | L1 | CO5 |
| 6 | In order to assess _____KV charts are employed. | L1 | CO3 |
| 7 | AB+AC =_____ | L1 | CO3 |
| 8 | Modifies the machine's state_____ | L1 | CO4 |
| 9 | In state tables, each input condition of the state graph is defined in_____ | L1 | CO4 |
| 10 | The matrix is the one in which A2 = A is_____ | L1 | CO5 |

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| Answer all the following Questions (5 Multiple choices & 5 Fill in the blanks). | | | Marks: 10X1/2M=5M |
| S.No | | BTL | CO |
| 1 | ABC+BCD+CDE+EFG is in the form of___<br>A. Sum of products B. Product of additions<br>C. Reduction of sums D. Product of sums | L1 | CO3 |
| 2 | In KV charts, the order of grouping should be<br>A. octets,islands,pairs,quads<br>B. octets, quads, pairs, islands<br>C. quads, pairs, islands, octets<br>D. islands, pairs, quads, octets | L1 | CO3 |
| 3 | The state in which no input sequence may be reached Is referred to as<br>A. Dead state B. Reachable state<br>C. Unreachable state D. Ambiguous State | L1 | CO4 |
| 4 | In the situation of _____A contradictory and ambiguous state occurs.<br>A. Transaction bugs B. Encoding bugs<br>C. Output errors D. State bugs | L1 | CO4 |
| 5 | When nodes of degree 3 are deleted from a node reduction optimization, total linkages are _____<br>A. reduced 1 B. not changed<br>C. increased D. reduced by 2 | L1 | CO5 |
| 6 | The table translator will look for_____of source table and fill in the default rules. | L1 | CO3 |
| 7 | When a decision table acts as a_____it is used for test case design. | L1 | CO3 |
| 8 | Two states are known as_____ if every series of inputs from one state creates exactly the same sequence of outputs for other states. | L1 | CO4 |
| 9 | In terms _____of there is a distinction between FSMs and combinational machines. | L1 | CO4 |
| 10 | A node's number of outlinks is referred to as_____. | L1 | CO5 |

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| | Compare domain and interface testing. |
| | Define domains, path and testability. |
| | Explain path expression with examples |
| | a) Write the procedure for specification validation<br>b) Describe the mean processing time of a routine with example. |
| | a) Explain about good state and bad state graphs<br>b) What are properties of relations? Explain. |
| | What are graph matrices and their applications? Explain in detail. |
| | Write about nice and ugly domains and give examples to each domain. |
| | Explain the schematic representation of domain testing. |
| | Write short notes on following: a) Distributive laws b) Absorption rule c) Loops d) Identity elements. |
| | Briefly explain about regular expressions and flow-anomaly detection |
| | a) Explain about state bugs<br>b) Explain state testing in detail. |
| | Explain about node reduction algorithm. |
| | Explain the schematic representation of domain testing. |
| | Difference between domain and interface testing. |
| | Describe push/pop and get/return models in path testing. |
| | Explain basic concepts of path products and path expressions. |
| | a) Discuss about the win-runner.<br>b) Explain good state graph with suitable example |
| | Elaborate node reduction algorithm with an example. |
| | State and explain various restrictions at domain testing processes. |
| | Explain predicates of domain testing with example. |
| | a) Compare structured and unstructured flow graphs and illustrate with an example.<br>b) Write rules of Boolean algebra. |

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| | Explain about regular expressions and flow-anomaly detection |
| | What are graph matrices and their applications? Explain in detail. |
| | Discuss about matrix representation software |