

Code No.: CS743PE

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

**IV-B.TECH-I-Semester End Examinations (Supply) - April- 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)

1. a) Distinguish between builder and buyer. [2M]
- b) What is the purpose of testing? [2M]
- c) What is domain testing? [2M]
- d) Explain about path selection in transaction-flow testing. [2M]
- e) Give an example of forging Data Flow anomaly state graph. [2M]
- f) Write about path predicates. [2M]
- g) What is state testing? [2M]
- h) Explain the elements in state graph? [2M]
- i) Define matrix of a graph [2M]
- j) Define power of a matrix with example [2M]

PART-B

(50 Marks)

2. Explain Taxonomy of bugs in detail. [10M]
- OR**
3. Explain dichotomies in detail. [10M]
- 4.a) Explain the strategies in data flow testing. [5M]
- b) Distinguish between testing and debugging. [5M]
- OR**
5. Explain Nice domains and Ugly domains in detail. [10M]
- 6.a) Explain loop term step in a reduction procedure with example. [5M]
- b) Discuss about decision tables and structure with example. [5M]
- OR**
- 7.a) Explain test case design and sketch KV charts of three and four variables. [5M]
- b) Define decision table and explain don't care and impossible terms. [5M]
8. Explain good and bad state graphs in detail. [10M]
- OR**
- 9.a) What are principles of state testing? Explain its advantages and disadvantages. [6M]
- b) Write motivational overview of logic-based testing. [4M]
10. Explain about node-reduction algorithm along with example. [10M]
- OR**
- 11.a) Discuss about graph matrix with application. [5M]
- b) Discuss about matrix representation software. [5M]
