

Code No.: CS8330E

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV-B.TECH-II-Semester End Examinations (Regular) – April - 2024
SOFTWARE TESTING METHODOLOGIES
(ECE)

[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) Define Debugging. [2M]
- b) List out the consequences of bugs. [2M]
- c) Give an example of forgiving data flow anomaly state graph. [2M]
- d) What is mean by interface testing? [2M]
- e) Write the limitations of path testing. [2M]
- f) What is mean by Path expression? [2M]
- g) Define Transition testing. [2M]
- h) What is the purpose of state graph and what does it represents? [2M]
- i) Give the example for usage of node reduction algorithm. [2M]
- j) What is adjacency matrix of a graph? [2M]

PART-B

(50 Marks)

2. What is the purpose of testing and add a note on the principles of test case design? [10M]
- OR**
- 3.a) Write about path expressions and path predicates. [5M]
- b) What are the heuristics procedures for sensitizing paths? [5M]
- 4.a) Explain data flow testing with an example and explain its generalizations and limitations. [5M]
- b) Explain the terms Dicing, data flow and debugging. [5M]
- OR**
5. Analyze the Interface testing, Interior point, Boundary point. [10M]
- 6.a) Explain about reduction procedure in path testing. [5M]
- b) Write the specifications of logic based testing. [5M]
- OR**
7. Give an account of the usage of regular expression in flow anomaly design. [10M]
8. Explain state testing and software implementation issues in state testing in a detailed. [10M]
- OR**
- 9.a) Define state graph and explain about finite state machine. [5M]
- b) Discuss about equivalent states, unreachable states and dead states. [5M]
- 10.a) What are the graph matrices and explain their applications. [5M]
- b) What are the connected components in a graph matrix? Write the difference between connected components and connected graph. [5M]
- OR**
- 11.a) Write about different types of building tools in software testing. [5M]
- b) Explain how Apache JMeter software testing tool will work with suitable example. [5M]
