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Eighth Semester B.E. Degree Examination, Aug./Sept.2020
Software Testing

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. Define Error, Fault, Failure, Incident, Test and Test case. Explain testing life cycle, with neat diagram. (10 Marks)
- b. Explain the triangle problem statement along with flowchart for traditional implementation. (10 Marks)
- 2 a. With example, explain Boundary value analysis and mention its limitation. (04 Marks)
- b. Write equivalence class test cases for triangle problem. (10 Marks)
- c. Explain about,
 - (i) Weak Normal Equivalence class Test cases.
 - (ii) Strong Normal Equivalence class Test cases.
 - (iii) Strong Robust Equivalence class Test cases. (06 Marks)
- 3 a. Explain about test coverage matrices. (08 Marks)
- b. Explain McCabe's basis path method. (04 Marks)
- c. Explain about
 - (i) du-Path Test coverage matrices with data flow diagrams. (08 Marks)
 - (ii) Slice-Based Testing. (06 Marks)
- 4 a. Explain traditional view of testing levels. (06 Marks)
- b. Explain about
 - (i) Top down integration (08 Marks)
 - (ii) Bottom up integration (06 Marks)
- c. Explain about Path Based Integration.

PART – B

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- 5 a. Define the terms:
 - (i) Threads (ii) Events (iii) Data (iv) Actions (v) Devices (10 Marks)
- b. Explain System Testing Guidelines. (06 Marks)
- c. Write a note on Client/Server Testing. (04 Marks)
- 6 a. Explain the six principles that characterize various approaches and technique for analysis and testing. (10 Marks)
- b. With a neat diagram, explain the relation of verification and validation activities with respect to artifact produced in software development project. (10 Marks)
- 7 a. Explain the fault based adequacy criteria. (08 Marks)
- b. Describe the test oracles with a neat diagram. (08 Marks)
- c. What is scaffolding? Explain. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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- 8 Write short notes on :
- a. Quality Planning
 - b. Risk Management
 - c. Quality and Processes
 - d. Monitoring the process

(20 Marks)
