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USN	×	CMAIT LIBRARY	10CS842
		BANGALORE - 566 837	

Eighth Semester B.E. Degree Examination, June/July 2018

Software Testing

Time: 3 hrs.

2

Max. Marks: 100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART - A

- 1 a. Explain the testing definitions of the following:
 - i) Fault
- ii) Failure
- iii) Incident
- iv) Test case

and draw the flow diagram of a testing life cycle.

(10 Marks)

- Briefly explain about the functional testing and structural testing.Draw the data flow diagram for a structured triangle program implementation.
- (06 Marks) (04 Marks)

- a. Explain: i) Robustness testing
- ii) Worst-case testing

(08 Marks)

b. Explain equivalence class test cases for the triangle problem.

(12 Marks)

- a. Define program graph. Draw the program graph and find the DD paths, DD path graph for the triangle program. (10 Marks)
 - b. For the program graph G(P) and a set of program variable V, define the following:
 - i) Define node of variable
 - ii) Usage node of variable
 - iii) Definition use path with respect to variable
 - iv) Definition clear path with respect to variable
 - v) Usage node USE (v, n)

(10 Marks)

- 4 a. Explain about specified based life cycle models in levels of testing. (10 Marks)
 - b. Describe decomposition based integration and its goals. Explain the different types of decomposition based integration. (10 Marks)

PART - B

- 5 a. Explain about the basic concepts for requirements in system testing.
- (10 Marks)
- b. Explain about client/server testing with respect to interaction testing.
- (10 Marks)
- a. With a neat diagram, explain the relation of verification and validation activities with respect to artifact produced in software development project. (10 Marks)
 - Explain the principles that characterize various approaches and technique for analysis and testing. (10 Marks)
- 7 a. Define scaffolding. Distinguish between generic versus specific scaffolding briefly.

(08 Marks)

- b. Explain about:
 - i) Test oracles
 - ii) Capture and relay
 - iii) Test cases

(12 Marks)

- 8 Write short notes on the following:
- a. Quality and process

- b. Risk planning
- c. Test and analysis strategies and plan
- d. Quality team

(20 Marks)

