Sahyadri College of Engineering & Management
CENTRAL LIBRARY
Adyar, Mangalore-7

USN | | | | | | | | | | |

10CS842

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

Software Testing

Time: 3 hrs. Max. Marks:100

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

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.

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)**

b. Briefly explain about the functional testing and structural testing. **(06 Marks)**

c. Draw the data flow diagram for a structured triangle program implementation. **(04 Marks)**

2 a. Explain: i) Robustness testing ii) Worst-case testing **(08 Marks)**

b. Explain equivalence class test cases for the triangle problem. **(12 Marks)**

3 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)**

6 a. With a neat diagram, explain the relation of verification and validation activities with respect to artifact produced in software development project. **(10 Marks)**

b. 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)**

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