10CS842

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.
        (ii) Slice-Based Testing.   (08 Marks)

4   a. Explain traditional view of testing levels.   (06 Marks)
    b. Explain about
        (i)   Top down integration
        (ii) Bottom up integration   (08 Marks)
    c. Explain about Path Based Integration.   (06 Marks)

PART – B

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)

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

(20 Marks)

* * * * *