

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

15IS63

Sixth Semester B.E. Degree Examination, June/July 2019

Software Testing

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is software testing? Why it is so important in SDLC life cycle. (03 Marks)
b. Explain the portrays of software testing life cycle. (05 marks)
c. List six types of faults and explain each with example. (08 Marks)

OR

- 2 a. Identify problem statement for a triangle with flowchart for traditional implementation. (08 Marks)
b. Describe the GUI application currency converter and embedded device Satrun wind shield wiper with diagram. (08 Marks)

Module-2

- 3 a. Explain the boundary value analysis and BVA robust in detail with function of two variables and show how to prepare test input sets. (08 Marks)
b. What is mutation? Explain variation on mutation in detail. (08 Marks)

OR

- 4 a. Explain different types of equivalence class testing in detail. (08 marks)
b. What is fault based testing? Define below with respect to fault based-testing :
i) Original Program ii) Program Location
iii) Alternate Expression iv) Alternate Program. (08 Marks)

Module-3

- 5 a. What is program graph? Draw program graph for triangle pseudocode. (08 marks)
b. Explain test execution technique test oracle in detail with neat diagram. (08 Marks)

OR

- 6 a. Illustrate structural testing with diagram. How to identify DD paths in the program graph? Explain with example. (08 Marks)
b. What is scaffolding? Explain application specific scaffolding capture and replay test execution techniques. (08 Marks)

Module-4

- 7 a. Explain any four basic principles in detail. (08 marks)
b. Explain the dependability properties. (04 marks)
c. Explain improving the process. (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.

OR

- 8 a. Write a short note on :
- Quality process
 - Planning and monitoring process
 - Quality goals
 - Risk planning.
- (08 Marks)
- b. Explain clean room process model and software reliability engineered testing (SRET) approach. (08 Marks)

Module-5

- 9 a. With a neat diagram, explain alternate life cycle – specification based model in detail. (08 Marks)
- b. In brief explain :
- Unit testing
 - System testing
 - Acceptance testing
 - Usability testing.
- (08 Marks)

OR

- 10 a. Explain the call graph–based integration with the help of :
- Pair–wise integration
 - Neighborhood integration.
- (08 Marks)
- b. What is regression testing? Explain code–based regression test selection and control–flow and data flow regression test selection. (08 Marks)

* * * * *