CBCS SCHEME

USN | | | | | | | | | | **17CS552**

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020

Introduction to Software Testing

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. Determine the following with on example.
i) Error ii) Fault iii) Failure iv) Incident **(10 Marks)**

b. Explain White Box Testing and Black Box Testing. Mention their advantages and disadvantages. **(10 Marks)**

OR

2 a. Explain the static and dynamic attributes in software quality. **(10 Marks)**

b. With a neat diagram, explain the levels of testing. **(10 Marks)**

Module-2

3 a. Explain the following equivalence testing types :
i) Weak Normal ii) Strong Normal iii) Weak Robust iv) Strong Robust. **(10 Marks)**

b. Design Decision Table for the triangle problem and explain the test cases. **(10 Marks)**

OR

4 a. Write a pseudocode for the commission problem. **(10 Marks)**

b. Justify the usage of boundary value analysis with an example and also mention its limitations? **(10 Marks)**

Module-3

5 a. Explain test coverage metrics. **(10 Marks)**

b. Explain du-path test coverage matrices with a data flow diagram. **(05 Marks)**

c. Explain McCabe's basic path method. **(05 Marks)**

OR

6 a. Define Slice based testing and explain the style and techniques of data flow testing. **(10 Marks)**

b. Write a triangle program. Draw the program graph and find the DD paths, DD path graph **(10 Marks)**

Module-4

7 a. Define scaffolding. Explain Generic versus specific scaffolding. **(10 Marks)**

b. Define Test Oracle. Explain with a neat diagram the concept of test harness. **(10 Marks)**

OR

8 a. Explain the following: i) Risk Planning ii) Process Monitoring. **(10 Marks)**

b. Describe the two main steps of orthogonal defect classification. **(10 Marks)**

Module-5

9 a. What is system Acceptance and Regressing Testing? Explain briefly. **(10 Marks)**

b. Write context diagram and Level.1 dataflow diagram of SATM system. **(10 Marks)**

OR

10 a. Define: i) Module execution path ii) Message iii) MM Path iv) MM – Path graphs. **(04 Marks)**

b. With an example, define the following:
i) Top Down Integration ii) Bottom up Integration iii) Sandwich Integration. **(06 Marks)**

c. Describe the Pairwise and Neighborhood Integration with examples. **(10 Marks)**

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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.