

# LABORATORY MANUAL

**17ISL67 - SOFTWARE TESTING LABORATORY**

2019-20



DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING  
ATRIA INSTITUTE OF TECHNOLOGY  
Adjacent to Bangalore Baptist Hospital  
Hebbal, Bengaluru-560024

**SYLLABUS**  
**SEMESTER – VI**

**Subject Code 17ISL67**

**IA Marks 40**

**Exam Marks 60**

**Exam Hours 03**

1. Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Assume that the upper limit for the size of any side is 10. Derive test cases for your program based on boundary-value analysis, execute the test cases and discuss the results.
2. Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of boundary value testing, derive different test cases, execute these test cases and discuss the test results.
3. Design, develop, code and run the program in any suitable language to implement the NextDate function. Analyze it from the perspective of boundary value testing, derive different test cases, execute these test cases and discuss the test results.
4. Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Assume that the upper limit for the size of any side is 10. Derive test cases for your program based on equivalence class partitioning, execute the test cases and discuss the results.
5. Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of equivalence class testing, derive different test cases, execute these test cases and discuss the test results.
6. Design, develop, code and run the program in any suitable language to implement the NextDate function. Analyze it from the perspective of equivalence class value testing, derive different test cases, execute these test cases and discuss the test results.

7. Design and develop a program in a language of your choice to solve the triangle problem defined as follows: Accept three integers which are supposed to be the three sides of a triangle and determine if the three values represent an equilateral triangle, isosceles triangle, scalene triangle, or they do not form a triangle at all. Derive test cases for your program based on decision-table approach, execute the test cases and discuss the results.
8. Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of decision table-based testing, derive different test cases, execute these test cases and discuss the test results.
9. Design, develop, code and run the program in any suitable language to solve the commission problem. Analyze it from the perspective of dataflow testing, derive different test cases, execute these test cases and discuss the test results.
10. Design, develop, code and run the program in any suitable language to implement the binary search algorithm. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results.
11. Design, develop, code and run the program in any suitable language to implement the quick sort algorithm. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results.
12. Design, develop, code and run the program in any suitable language to implement an absolute letter grading procedure, making suitable assumptions. Determine the basis paths and using them derive different test cases, execute these test cases and discuss the test results

**Study Experiment / Project:**

1. Design, develop, code and run the program in any suitable language to solve the triangle problem. Analyze it from the perspective of dataflow testing, derive different test cases execute these test cases and discuss the test results.
2. Design, develop, code and run the program in any suitable language to solve the Nextdate problem. Analyze it from the perspective of decision table-based testing, derive different test cases, execute these test cases and discuss the test results.

**Notes: In the examination *each* student picks one question from the lot of *all* 12 questions. The programs must be executed in UNIX / LINUX environment.**

**VIVA QUESTIONS:**

1. What is the difference between Project Based Testing and Product Based Testing?
2. What is testing process in related to Application testing process is the one which tells you how the application should be tested in order to minimize the bugs in the application?
3. What is the difference between Testing Methodology and Testing methods?
4. What are starting links to test while website testing?
5. How GUI testing will be done in manual testing for a website?
6. What things should be tested in regression testing?
7. What is the document required to prepare during testing?
8. What is Test data? Where we are using this in testing process? What is the importance of this data?
9. What is the difference between test case and test script?
10. What is the difference between bug, error and defect?
11. What is the difference between quality assurance and system testing explains in detail with an example?
12. How do you decide when you have 'tested enough'?
13. What is the difference between Build Management and Release Management? When will conduct build verification and end to end testing?
14. What is boundary value analysis (BVA)? What is the use of it?
15. What is equivalence class partition (ECP)? What is the use of it?
16. If there is no sufficient time for testing & you have to complete the testing, then what will you do?
17. What is meaning by prototype in SDLC?
18. What is difference between desktop and web application?
19. Difference between application testing and product testing?
20. What is a broken link in web testing and how test it?
21. When will you make update and modify the test object properties in the repository?
22. What is the document needed to create a test case? How you tell it is test case?
23. In customer details form having fields like customer name, customer address. After completion of this module, client raise the change as insert the two radio buttons after customer address. How you can check as a tester?
24. At the time of testing web based applications and client server applications, what you absorbed as a tester?
25. What are the documents required to prepare test plan?
26. What is testing policy and testing methodology? And what is the difference?
27. What is comparison testing?
28. What is the general testing process?
29. What participation a manual tester can do in documentation? Are there any tools available for only documentation?
30. What is the difference between low and high level test cases? Give Examples?
31. Is it mandatory to use USECASES or directly one can write test cases from requirements?
32. How does u develop test harness?
33. Given requirement collection document, tester can prepare which test plan?
34. Tester with develop meant knowledge will be more effective .justify?
35. As far as the SDLC is concerned last test case, will it be written for "Maintenance Phase"?

36. What is test scenario and test case? Please explain in detail?
37. What is cookie And Session testing?
38. How would you perform testing manually for web site?
39. What is use case? Tell me the attribute of use case?
40. What are the difference between stress, volume and load testing?
41. When will do the beta test? When will do the alpha test?
42. How do you select test cases for Regression Testing (The point is when there is change code how do you come to know which part of code or modules it will affect)?
43. Can you explain with example of high severity and low priority, low severity and high priority, high severity and high priority, low severity and low priority?
44. What will be the Test case for ATM Machine & Coffee Machine?
45. Tell me about the daily activities as a test engineer?
46. In SDLC process what is the role of PM, TL, DEVELOPER, tester in each and every phase? Please explain me in detail?
47. How do you Test Application with having any requirement and Document?
48. What is back end testing using SQL?
49. What are the reasons why parameterization is necessary when load testing the Web server and the database server?
51. Draw Backs of automated testing?
52. How do you review test case? Type of Review...
53. In which way tester get Build a, Build B, Build Z of an application, just explains the process?
54. Apart from bug reporting what is your involvement in project life cycle?
55. What are the contents of test report?
56. Write high level test cases?
57. What is test scenario?
58. What is build duration?
59. What is test deliverables?
60. What is your involvement in test plan?
61. Which test cases are not to be automated?
62. If a project is long term project, requirements are also changes then test plan will change or not? Why?
63. Explain VSS (Virtual Source Safe)?
64. Who will assign severity & priority?
65. What is the Difference between Stub Testing and Driver Testing?
66. What is a "Good Tester"?
67. How you can decide the number of test cases is enough for testing the given module?
68. What is the difference between Retesting and Data Driven Testing?
69. What is regression testing?
70. How does u test web application?
71. How does perform regression testing, means what test cases you select for regression?
72. What are the client side scripting languages and server side scripting languages?
73. If a very low defect (user interface) is detected by you and the developer not compromising with that defect,  
what will you do?
74. If you are only person in the office and client asked you for some changes and you didn't get what the client asked for what will you do?
75. How to get top two salaries from employee tables?

76. How many Test-Cases can be written for the calculator having 0-9 buttons, Add, Equal to buttons? The test cases should be focused only on add-functionality but not GUI. What are those test-cases?
77. What is positive and negative testing? Explain with example?
78. How will you prepare Test plan. What are the techniques involved in preparing the Test plan?
79. What is the Defect Life Cycle?
80. Explain about metrics Management?
81. What is performance Testing and Regression Testing?
82. What is meant by Priority and severity?
83. Give me some example for high severity and low priority defect?
84. What is basis for test case review?
85. What are the contents of SRS documents?
86. What is difference between the Web application testing and Client Server testing?
87. Explain your web application architecture?
88. Suppose the product/application has to deliver to client at 5:00 PM, at that time you or your team member caught a high severity defect at 3:00 PM. (Remember defect is high severity) but the client is cannot wait for long time. You should deliver the product at 5:00 Pm exactly. Then what is the procedure you follow?
89. Give me examples for high priority and low severity defects?
90. Explain about Bug life cycle?
91. How can you report the defect using excel sheet?
92. If you have executed 100 test cases ,every test case passed but apart from these test case you found some defect for which test case is not prepared, then how you can report the bug?
93. What is the difference between web based application and client server application?
94. What is test plan? And can you tell the test plan contents?
95. How many test cases can you write per a day, an average figure?
96. Who will prepare FRS (functional requirement documents)? What is the important of FRS?
97. Differentiate between QA and QC?
98. What is a bug?
99. What is a test case?
100. What is the purpose of test plan in your project?
101. When the relationships occur between tester and developer?
102. When testing will starts in a project?
103. If a bug has high severity then usually that is treated as high priority, then why do priority given by test engineers/project managers and severity given by testers?
104. What is the difference between functional testing and regression testing?
105. Do you know about integration testing, how do you integrate different modules?
106. Do you know about configuration management tool, what is the purpose of maintaining all the documents in configuration management tool?
107. How do you test database and explain the procedure?
108. Suppose if you press a link in yahoo shopping site in leads to some other company website? How to test if any problem in linking from one site to another site?
109. What are the contents of FRS?
110. What is meant by Priority and severity?
111. What is the difference between use case, test case, test plan?

112. How can we design the test cases from requirements? Do the requirements, represent exact functionality of AUT?
113. How to launch the test cases in Test Director and where it is saved?
114. What is the deference between a bug and a defect?
115. How can we explain a bug, which may arrive at the time of testing. Explain?
116. What do you mean by reproducing the bug? If the bug was not reproducible, what is the next step?
117. How can you know bug is reproducible or not?
118. On which basis we give priority and severity for a bug and give one example for high priority and low severity and high severity and low priority?
119. How is traceability of bug follow?
120. What will be the role of tester if bug is reproduced?
121. Who will change the status of bug?
122. Is it possible to have a defect with high severity and low priority or vice verse?
123. What is defect life cycle in manual testing?
124. What is difference between bug resolution meeting and bug review committee? Who are the participants in bug resolution meeting and bug review committee?
125. How to give bug title and bug description for ODD division?
126. What is build interval period?
127. What is difference between End to end testing and system testing?
128. How would you say that a bug is 100% fixed?
129. How to post a bug?
130. What are the different types of bugs we normally see in any of the project?
131. What is a difference between a Defect and an enhancement?
132. What is the ONE key element of 'test case'?
133. What is the ONE key element of 'test plan'?
134. What is Red Box testing? What is Yellow Box testing? What is Grey Box testing?
135. What is meant by bucket testing?
136. How much time is/should be allocated for testing out of total Development time based on industry standards?
137. What is log sheet? And what are the components in it?
138. What is Multi Unit testing?
139. Project is completed. Completed means, now UAT testing going, in that situation as a tester what will you do?
140. Find the values of each of the alphabets.
141. What is difference between a Test Plan, a Test Strategy, a Test Scenario, and a Test Case? What's their order of succession in the STLC?
142. What kind of things does one need to know before starting an automation project?
143. What is Scalability testing? Which tool is used? What are the phases of the scalability testing?
144. Who are the three stake holders in testing?
145. How many functional testing tools are available? What is the easiest scripting language used?
146. How many types of function to test a system?
147. Is there any tool to calculate how much time should be allocated for testing out of total development?
148. Define Reliability?

149. What is Traceability Matrix? Is there any interchangeable term for Traceability Matrix? Are Traceability Matrix and Test Matrix same or Different?
150. Cost of solving a bug from requirements phase to testing phase - increases slowly, decreases, and increases steeply or remains constant?
151. What is the purpose of software testing's - Bug removal, System's functionality working, quality or all?
152. Have you worked with data pools and what is your opinion on them? Give me an example as to how a script would handle the data pool?
153. Best to solve defects - requirements, plan, design, code / testing phase?
154. What is the major difference between Web services & client server environment?
155. What are test bugs?
156. What is the difference between bug and defect?
157. Which Methodology you follow in your test case?
158. Correct bug tracking process - Reporting, Re-testing, Debugging...
159. What is the difference between an exception and an error?
160. What is Test Procedure?
161. Have you ever converted Test Scenarios into Test Cases?
161. During the start of the project how the company will come to a conclusion that tool is required for testing or not?
162. How do you promote the concept of phase containment and defect prevention?
163. What is SQA testing? Tell us steps of SQA testing?
164. Can we write Functional test case based on only BRD or only Use case?
165. What is the difference between Use Case and test case?
166. Can you give me the exact answer for Test Bug?
167. For notepad application can anyone write the functional and system test cases?
168. What is the difference between GUI testing and black box testing?
169. The recruiter asked if I have Experience in Pathways. What is this?
170. What are the differences between interface and integration testing? Are system specification and functional specification the same? What are the difference between system and functional testing?
171. What are the different types, methodologies, approaches, methods in software testing?
172. Which phase is called as the Blackout or Quite Phase in SDLC?
173. What is the difference between Desktop application testing and Web testing?
174. What is Business Process Management (BPM)?
175. What is business process in software testing?
176. What is the difference between test techniques and test methodology?
177. What is meant by test environment? What is meant by DB installing and configuring and deploying skills?
178. When an application is given for testing with what initial testing, the testing will be started and when are all the different types of testing done following the initial testing?
179. In an application if I enter the delete button it should give an error message "Are you sure you want to delete" but the application gives the message as "Are you sure". Is it a bug? And if it is how you would rate its severity?
180. What is difference between test plan and use case?



**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING**

**Vision:**

To be centre of excellence in Information Science and Engineering equipping students with top notch competencies in the domain of information technology.

**Mission:**

- Promote best teaching - learning , research, innovation and also instill professional ethics, cultural values and environmental awareness among the students
- Establishing learning ambience with best infrastructure facilities