


1.

[Testing] Which of the following statements are **false**?


- ☒ If a system passes a large amount of tests, the system is free of bugs.
- ☐ Once all the bugs detected from the tests are fixed in a system, the system is free of bugs.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

2.

[Unit, Integration, System Testing] Which of the following statements are **true**?


- ☒ Both unit testing and integration testing should be performed before system testing.
- ☐ It is a good idea to start preparing the test cases for system testing only after all the implementation has been done.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

3.

[System Testing] Which of the following information (ideally) needs to be documented in a test case for system testing?


- ☒ Expected results
- ☐ Intermediate states of the system
- ☒ Required Inputs
- ☒ The purpose of the test case

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

4.

[System Testing] Which of the following statements are **true** about the various phases of system testing?


- ☒ Creating new test cases to increase test coverage can be part of the **Procedure** phase.
- ☒ In the **Report** phase, time and resource usage can be logged to assess and tune the performance of the system.
- ☒ It is advisable to use a bug/issue tracking tool for the **Tracking** phase.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

5.

[Black Box Testing] Black box testing must be conducted by a tester who is part of the development team.


- ☐ True
- ☒ False

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

6.

[Test Design Techniques] Prior experience is not useful in test planning.


- ☐ True
- ☒ False

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

7.

[Test Design Techniques] In the process of deciding if black-box testing can be used for system testing, it matters if a specification of the system under test exists.


- ☒ True
- ☐ False

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

8.

[In-class Activity TESTING-2] When testing the SIMPLE parser, multiple test cases (source codes examples) should be created to cover the following categories:


- ☒ Different levels of nesting (e.g., 1, 2, 3, more than 3 levels) of container statements.
- ☒ While statements only, if statements only, and a mix of while and if statements (combined with other assignments and call statements).
- ☒ Location of the container statement in the statement list: first or last statement of another container statement, while/if are first or last stmt in a procedure, while/if statements follow each other (e.g. a while statement contains two other while statements)
- ☐ Number of assignments in the SIMPLE code.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

9.

[In-class Activity TESTING-3] Which of the following statements are **true** about testing for correctness for single-clause query?


- ☒ One possible strategy to create test cases is to consider all possible combinations of the arguments used in the relationship or pattern first.
- ☒ While testing the correctness of Modifies relationship, one must have test cases that select different synonyms that may or may not overlap with the arguments used (e.g., synonyms, constant values, and underscore " \_").
- ☐ While testing the correctness of Follows relationship, one only needs a test suite with  $8 * 8 = 64$  queries. This is done by permutating 8 valid possibilities for both arguments (6 types of stmt-synonyms, wildcard underscore and constant statement number).
- ☒ It is important to make sure that the single-clause queries are well-tested before moving on to multiple-clause queries.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.

10.

[In-class Activity TESTING-4] Which of the following statements are **true** about testing for correctness for double-clause queries with one such-that clause and one pattern clause?

- ☒ One needs to consider the different combinations of relationships in such-that clause, with pattern clause. (E.g. Follows\* and pattern, Parent and pattern etc.)
- ☐ One only needs to try all possible combinations of different types of arguments (e.g., synonyms and/or constants) for each of the two clauses.
- ☒ One needs to consider the different number of overlapping synonyms in such-that and pattern clauses.
- ☒ One needs to consider whether the synonym chosen in the select clause overlaps with the synonyms used in such-that and pattern clauses.
- ☒ When designing the test cases, one needs to consider the total number of synonyms used in the query, as it determines the size of the final result table in the system.

 Response Rationale  
Please provide a rationale for your answer.  
No rationale provided.