CSE 404 Lab Test – 1 Time: 40 minutes Class Roll:_____

Question 1 **(Just write "T" for True and "F" for false)** **[6 points]**

	Statement	True/False
1.	Git is same as GitHub.	
2.	A user story is a special kind of story used to describe system behavior in detail.	
3.	Git automatically adds new files to the repository and starts tracking them.	
4.	SRS serves as a contract between customer and developer.	
5.	Non-functional requirements capture the intended behavior of the system.	
6.	A DFD provides no information about the timing or ordering of processes, or about whether processes will operate in sequence or in parallel.	

Question 2: **(Short answer)** **[4 points]**

1. What is the command to add all files and changes of the current folder to the staging environment of the Git repository?

2. What is the command to get the current status of the Git repository?

3. What is the command to commit the staged changes for the Git repository?

4. What is the command to move to the branch named "new-email"?

Question 3: **[14 points]**

Choose the most appropriate answer(s):

1) Which of the following is/are not functional requirement(s)? a) The system must run on MS Windows b) Mean time between failures must be at least 30 days c) An "Undo" feature must be provided d) The system must be available 24/7	**2)** What does the .git directory store? a) Configuration files b) source code c) Project documentation d) repository metadata and version history
3) UML diagrams are not type of _____ documentation. a) written b) source code c) community d) machine code	**4)** Which command creates a new branch in Git? a) git neew branch b) git branch c) git branch-new d) git create-brnach
5) Git commit history is automatically deleted: a) every year b) every 2 weeks c) never automitacally deleted d) every month	**6)** Which of the following is not included in SRS ? a) Performance b) Functionality c) Design solutions d) None of the options
7) What are the 3 parts to a user story? a) Who, When, Why b) Who, Where, Why c) Who, What, Why d) Who, What, Where	**8)** What does the HEAD in Git represent? a) The base of the current branch b) The currently checked-out commit c) The latest commit in the remote repository d) The first commit in the repository

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9) Generally each user story is _____ a) short / concise b) not Goal oriented c) describe how to implement specific functionality d) describe a feature	**10)** The "Who" part of the user story represents what?: a) The Developer or Software Engineer b) Anyone on the team c) The end user or customer d) All of the options
11) What's wrong with this user story: *As a developer, I want to build a storage database for security questions* a) Nothing is wrong, it looks good to me! b) The developer is not an end user or customer, so that user story isn't written well c) Why a storage database, maybe it could be something else?	**12)** What's wrong with this user story: *As a login system the invite to change password must expire in 30 minutes* a) Nothing is wrong, it looks good to me! b) It doesn't give enough detail on the invite and what it looks like c) The user is a system, and that is not a good practice!
13) In DFD, A .... is represented graphically by an arrow into or out of a process: a) Process b) Entity c) Flow d) Level	**14)** In DFD, Initially a context diagram is drawn, which is a simple representation of the entire system under investigation. This is followed by __ a) level 0 diagram b) level 1 diagram c) level A diagram d) both *a* and *b*

Question 4: **[6 points]**

What is *merge conflict* in Git? Explain with one example.

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Question 5: **[10 points]**

A class named Math has the following functions. Please write the **template code** (no need to write the body of the function) using *Pascal* casing for class and method name and *Camel* casing for function parameter names. Also write documentation in XML format.

Function	Purpose	Parameters	Return type
constructor	Initialize object	1 String	-
perform substractiion	subtraction of two numbers	2 floating values	floating value
check even number	check whether a number is even	1 integer	boolean

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