GitHub question:

**a) Explain what is meant by “Test Driven Design”**

Answer: - Test Driven Design means writing the **tests before the actual code**.  
You first create small tests that show what the program should do, then write code until all the tests passes. This helps find mistakes early and keeps the design simple.

**b) A style guide and a coding standard are different but related. Explain the difference between the two.**

Amnswer:-A **style guide** gives rules for how your code should look — things like spacing, naming, and comments. A coding standard defines how the program should be written to work correctly, such as how to handle errors or structure functions. Both help make code easy to use and see.

**c) Given a file named my\_module.py, determine the value of the built-in variable \_\_name\_\_ after Python executes:**

Answer:- from my module import \*

The value of \_\_name\_\_ inside *my\_module.py* will be **"my module"**,  
because the file is being imported, not run directly.

**d) What happens when Python executes:**

Answer:- x = 0

assert x! = 0

y = 1 / x

The assert statement fails because x equals 0, so Python raises an **Assertion Error** and stops the program.  
The line y = 1 / x never runs.

**e) Explain the “I/O operation on closed file” error.**

Answer:- The with open(...) block automatically **closes the file** after the indented part finishes.  
The second print runs **after** the file is closed, so Python raises a **Value Error** because it can’t read from a closed file.