## Python File Handling & Exception Handling Quiz: 25 Multiple-Choice Questions

1. Which built-in function is primarily used to open a file in Python?

   A. read()

   B. open()

   C. file_open()

   D. get_file()

   Answer: B

2. What is the correct syntax for opening a file named data.txt in read mode?

   A. f = open("data.txt", mode="r")

   B. f = open("r", "data.txt")

   C. f = open("data.txt", mode="w")

   D. f = open("data.txt", read_only=True)

   Answer: A

3. Which file mode is used to open a file for writing (creating a new file or overwriting an existing one)?

   A. 'r'

   B. 'a'

   C. 'w'

   D. 'x'

   Answer: C

4. Which file mode is used to open a file for appending (adding content to the end of the file)?

   A. 'r'

   B. 'a'

   C. 'w'

   D. 'x'

   Answer: B

5. What method is used to write a string to an open file object f?

   A. f.add_line("text")

   B. f.write("text")

   C. f.output("text")

   D. f.print("text")

   Answer: B

6. What is the best practice for ensuring a file is automatically closed, even if errors occur?

   A. Using the f.close() method at the end of the code.

   B. Using the try...except block.

   C. Using the with open(...) as f: statement.

   D. Python closes files automatically, so nothing is needed.

   Answer: C

7. What does the file method f.readline() do?

   A. Reads all lines from the file into a list.

   B. Reads the entire content of the file as a single string.

   C. Reads only the next single line from the file.

   D. Writes a single line to the file.

   Answer: C

8. When reading the entire content of a file, which method returns the content as a single string?

   A. f.readline()

   B. f.readlines()

   C. f.read()

   D. f.get_all()

   Answer: C

9. What is the purpose of the try block in exception handling?

   A. It defines the code that must always run.

   B. It defines the code to run if an error occurs.

   C. It defines the code where the error is expected to occur.

   D. It defines the cleanup code.

   Answer: C

10. Which block of code handles an error when it occurs within the try block?

    A. finally

    B. else

    C. except

    D. pass

    Answer: C

11. What happens if a specific exception is raised in the try block, but the corresponding except block for that exception is missing?

    A. The program ignores the error.

    B. The program crashes and displays the error message.

    C. The program continues running without any issue.

    D. The finally block runs, and then the program continues.

    Answer: B

12. Which built-in exception occurs when you try to use a variable that has not been defined?

    A. TypeError

    B. ValueError

    C. NameError

    D. IndexError

    Answer: C

13. Which built-in exception occurs when you try to access an index outside the bounds of a List or Tuple?

    A. KeyError

    B. IndexError

    C. SyntaxError

    D. AttributeError

    Answer: B

14. What common exception occurs when attempting to convert a non-numeric string (e.g., "hello") into an integer using int()?

    A. NameError

    B. ValueError

    C. TypeError

    D. IOError

    Answer: B

15. What is the purpose of the finally block?

    A. It only runs if the try block succeeds.

    B. It only runs if an exception occurs.

    C. It always runs, regardless of whether an exception occurred or not.

    D. It is used to define the function's return value.

    Answer: C

16. What does the file mode 'r+' allow you to do?

    A. Read-only access.

    B. Write-only access (overwrites existing file).

    C. Read and write access (pointer starts at the beginning).

    D. Append and read access.

    Answer: C

17. Which operator is commonly used to catch an exception and assign the error object to a variable (e.g., except SomeError as e: )?

    A. is

    B. to

    C. and

    D. as

    Answer: D

18. What is the output of the following code if my_list = [10, 20, 30]?

```Python
try:
    print(my_list[3])
except IndexError:
    print("Out of bounds")
```

    A. 40

    B. Out of bounds

    C. IndexError

    D. 30

    Answer: B

19. When writing to a file, if you use the mode 'w', what happens to the existing content of the file?

    A. The new content is added to the end.

    B. The existing content is deleted and replaced with the new content.

    C. Python asks the user what to do.

    D. An error is raised.

    Answer: B

20. Which exception specifically occurs when you try to open a file that does not exist in the specified path?

    A. FileExistsError

    B. FileNotFoundError

    C. NameError

    D. PermissionError

    Answer: B

21. What file mode should be used to work with binary files (like images or executables) instead of plain text files?

    A. 'rb' or 'wb'

    B. 'rt' or 'wt'

    C. 'ra' or 'wa'

    D. 'rx' or 'wx'

    Answer: A

22. The else block in a try...except...else structure executes only if:

    A. The try block raises an exception.

    B. The except block catches an exception.

    C. The try block executes without raising any exception.

    D. The finally block runs successfully.

    Answer: C

23. When you successfully open a file using open(), what is returned?

    A. The entire file content as a string.

    B. A Boolean value (True).

    C. A file object (or file handle).

    D. The size of the file in bytes.

    Answer: C

24. Which method is used to explicitly raise an exception in your code?

    A. create()

    B. throw

    C. except

    D. raise

    Answer: D

25. What is the output of this code snippet regarding the file object f?

```Python
with open("notes.txt", "w") as f:
    f.write("Important notes.")
# At this point, f is no longer accessible.
```

    A. The file is still open for reading.

    B. The file is guaranteed to be closed.

    C. An exception is guaranteed to be raised.

    D. The content of the file is erased.

    Answer: B