Answer Sheet for Error Handling in Python

1. Coding Challenge Solution:

```
try:
    numerator = float(input("Enter the numerator: "))
    denominator = float(input("Enter the denominator: "))
    result = numerator / denominator
    print(f"Result: {result}")
except ZeroDivisionError:
    print("Error: Division by zero is not allowed.")
except ValueError:
    print("Error: Invalid input. Please enter numeric values.")
except Exception as e:
    print(f"An unexpected error occurred: {e}")
finally:
    print("Thank you for using the program!")
```

---

2. Multiple Choice Questions Answers:

Question 1: What does the `finally` block do in a try-except structure?
Answer: c) Executes regardless of whether an exception occurs or not.

Question 2: What exception is raised when trying to open a non-existent file?
Answer: a) FileNotFoundError

Question 3: What is the correct way to raise a custom exception in Python?
Answer: c) raise Exception("Custom message")

---

3. Bonus Challenge Solution:

python
Copy code

```
try:
    file_name = input("Enter the file name: ")
    with open(file_name, "r") as file:
        content = file.read()
        print("File content:")
```

```
        print(content)
except FileNotFoundError:
    print("Error: The specified file does not exist.")
except PermissionError:
    print("Error: You do not have permission to access this file.")
except Exception as e:
    print(f"An unexpected error occurred: {e}")
finally:
    print("File operation completed.")
```