## File Handling Questions

1. Write a Python program to create a file and write multiple lines into it.

```
with open("sample.txt", "w") as file:
    file.write("Hello World\n")
    file.write("Python \n")
    file.write("High level programming 3\n")
```

2. Write a program to read the first n lines of a file.

```
n = 2
with open("sample.txt", "r") as file:
    for i in range(n):
        print(file.readline())
```

3. Write a program to append content to an existing file without overwriting it.

```
with open("sample.txt", "a") as file:
    file.write("This line is appended to the text .\n")
```

4. How do you check whether a file exists using the os module?

```
import os
filename = "sample.txt"
if os.path.exists(filename):
    print("File exists")
else:
    print("File does not exist")
```

5. Write a program to copy the contents of one file into another file.

```
with open("sample.txt", "r") as source, open("copy.txt", "w") as destination:
    for i in source:
        destination.write(i)
```

6. Write a Python script to read a file and count:
   - Total lines
   - Total words
   - Total characters

```
lines = 0
words = 0
chars = 0
with open("sample.txt", "r") as file:
    for line in file:
        lines += 1
        words += len(line.split())
        chars += len(line)
print("Lines:", lines)
print("Words:", words)
print("Characters:", chars)
```

7. Write a program to merge the contents of two text files into a third file.

```
with open("file1.txt", "w") as f1:
    f1.write("This is the first file.\n")
with open("file2.txt", "w") as f2:
    f2.write("This is the second file.\n")
with open("file1.txt", "r") as file1, open("file2.txt", "r") as file2:
    content1 = file1.read()
    content2 = file2.read()
with open("merged.txt", "w") as merged_file:
    merged_file.write(content1 + "\n")
    merged_file.write(content2)
with open("merged.txt", "r") as f:
    print("\n Merged file content:")
    print(f.read())
```

8. Write a Python program to read a file and display only unique lines (remove duplicates).

```
with open("sample.txt", "r") as file:
    lines = file.readlines()
    unique = set(lines)
for line in unique:
    print(line.strip())
```

9. Write a program that reads a file and prints only the lines that contain a specific keyword.

```
keyword = "Python"
with open("sample.txt", "r") as file:
    for line in file:
        if keyword in line:
            print(line.strip())
```

10. Write a program to read the last n lines of a file.

```
n = 2
with open("sample.txt", "r") as file:
    lines = file.readlines()
    for line in lines[-n:]:
        print(line.strip())
```

11. Write a program to count the frequency of each word in a file.

```
word_freq = {}
with open("sample.txt", "r") as file:
    for line in file:
        words = line.strip().split()
        for word in words:
            word = word.lower().strip('.,?!')
            word_freq[word] = word_freq.get(word, 0) + 1
print("word frequency in the file:")
for word,count in word_freq.items():
    print(f"{word}:{count}")
```

12. Write a program to write a list of strings into a file, each string on a new line.

```
lines = ["Python", "High level programming", "User Friendly"]

with open("strings.txt", "w") as file:

    for line in lines:

        file.write(line + "\n")
```