Lesson: 4: Data File handling

A.   (Q1 to Q10) There are four options against each question. Choose the option which you   consider the most appropriate as your answer.

1. To open a file c:\scores.txt for reading, we use
a) infile = open("c:\scores.txt", "r")
b) infile = open("c:\\scores.txt", "r")
c) infile = open(file = "c:\scores.txt", "r")
d) infile = open(file = "c:\\scores.txt", "r")

2. To open a file c:\scores.txt for writing, we use
a) outfile = open("c:\scores.txt", "w")
b) outfile = open("c:\\scores.txt", "w")
c) outfile = open(file = "c:\scores.txt", "w")
d) outfile = open(file = "c:\\scores.txt", "w")

3. To open a file c:\scores.txt for appending data, we use
a) outfile = open("c:\\scores.txt", "a")
b) outfile = open("c:\\scores.txt", "rw")
c) outfile = open(file = "c:\scores.txt", "w")
d) outfile = open(file = "c:\\scores.txt", "w")

4. Which of the following statements are true?
a) When you open a file for reading, if the file does not exist, an error occurs
b) When you open a file for writing, if the file does not exist, a new file is created
c) When you open a file for writing, if the file exists, the existing file is overwritten with the new file
d) All of the mentioned

5. To read two characters from a file object infile, we use
a) infile.read(2)
b) infile.read()
c) infile.readline()
d) infile.readlines()

6. To read the entire remaining contents of the file as a string from a file object infile, we use
a) infile.read(2)
b) infile.read()
c) infile.readline()
d) infile.readlines()

7. What is the output?
```
f = None
for i in range (5):
    with open("data.txt", "w") as f:
        if i > 2:
            break
print(f.closed)
```
a) True
b) False
c) None
d) Error

8. To read the next line of the file from a file object infile, we use
a) infile.read(2)
b) infile.read()
c) infile.readline()
d) infile.readlines()

9. To read the remaining lines of the file from a file object infile, we use
a) infile.read(2)
b) infile.read()
C) infile.readline()
d) infile.readlines()

10. The readlines() method returns
a) str
b) a list of lines
c) a list of single characters
d) a list of integers
Answer: b
Explanation: Every line is stored in a list and returned.

B.   Short Answer Questions:

1. Write a Python program to read an entire text file.
2. Write a Python program to read first n lines of a file.
3. Write a Python program to append text to a file and display the text.
4. Write a Python program to read last n lines of a file.
5. Write a Python program to read last n lines of a file.
6. Write a Python program to read a file line by line and store it into a list.
7. Write a Python program to read a file line by line store it into a variable.
8. Write a Python program to read a file line by line store it into an array.

C.   Long Answer Questions:

1. Write a Python program to count the number of lines in a text file.
2. Write a Python program to count the frequency of words in a file.
3. Write a program to count total no of spaces, words, characters, lines in a msg.txt file.
4. What is file? Write difference between text file and binary file

5. Differentiate between text files and binary files.
6. Write a program to copy the content of notes.txt from 3rd character to till end of file to para.txt
7. Write a program to create binary file
8. Write a python program to find the longest words.