MODULE M PROGRAMMING · M21

File handling: open, read, write and close

Original practice questions · 22 marks · ~25 minutes · OCR J277 spec 2.2.3

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **22 marks**. Code on this sheet is written in OCR Exam Reference Language.

1

Total: 4 marks

Tick (✓) **one** box in each row to show which file handling operation each description matches. **[4]**

Description	Open	Read	Write	Close
Adds a line of text from the program to the end of the file				
Releases the file once the program has finished using it				
Connects the program to a named file so that it can be used				
Copies the next line of the file into the program, where it can be stored in a variable				

2

Total: 4 marks

A museum's ticket log, `tickets.txt`, holds two lines: `T101` then `T102`. This program then runs.

```
01 logFile = open("tickets.txt")
02 logFile.writeLine("T103")
03 logFile.writeLine("T104")
04 logFile.close()
```

(a) Show the contents of `tickets.txt` after the program has run. You may not need to use all the boxes. **[2]**

Contents of tickets.txt, one line in each box (line 1 on the left)				

(b) The museum also needs a file called `archive.txt`, which does not exist yet. Write the code to create `archive.txt` and then open it, storing the open file in a variable. **[2]**

3 **Total: 4 marks**

A weather station saves one temperature reading on each line of the text file `readings.txt`. Today the file holds these four lines:

```
14
17
9
21
```

This program uses the file.

```
01 total = 0
02 count = 0
03 tempFile = open("readings.txt")
04 while NOT tempFile.endOfFile()
05     reading = int(tempFile.readLine())
06     total = total + reading
07     count = count + 1
08 endwhile
09 tempFile.close()
10 print(total / count)
```

(a) State the value that line 10 outputs. **[1]**

(b) State how many times line 05 is run. **[1]**

(c) Describe the purpose of line 04. **[2]**

4 **Total: 4 marks**

A smart speaker stores its volume level on the first line of the text file `settings.txt`. This program should:

- open `settings.txt`
- read the first line of the file and store it in the variable `volume`
- output the message `Volume:` followed by the volume level
- close the file.

```
01 setFile = open(settings.txt)
02 volume = setFile.writeLine()
03 print("Volume: " + volume)
04 setFile.close()
```

The program contains **two** errors. Identify the line number of each error and write the corrected line of code. **[4]**

Line number	Corrected line of code

5 **Total: 6 marks**

A café records its orders in the text file `orders.txt`. The file is empty at the start of the day.

Write a program that: **[6]**

- opens `orders.txt`
- asks the user to enter an order, again and again, until the user enters `stop`
- writes each order to the file as a new line (`stop` must not be written to the file)
- closes the file
- outputs the number of orders written to the file.

You must use either:

- OCR Exam Reference Language, or
- a high-level programming language that you have studied.

Total for this worksheet: 22 marks