1. To what does a relative path refer?

* A relative path refers to a file or directory path that is relative to the current working directory of the program or the user's current location in the file system.

2. What does an absolute path start with your operating system?

* The format of an absolute file path varies depending on the operating system being used.
* In general, an absolute path in a Unix-based operating system (such as Linux or macOS) starts with a forward slash (/) character, which represents the root of the file system. The path then continues with one or more directory names separated by forward slashes, leading to the desired file or directory.
* For ex; C:\absolute\path\to\data\example.txt

3. What do the functions os.getcwd() and os.chdir() do?

* The functions **os.getcwd()** and **os.chdir()** are used to get and change the current working directory of a Python program, respectively.

4. What are the . and .. folders?

* The . directory represents the current working directory. For example, if you are currently in the /home/user directory, then the . directory would refer to /home/user.
* The .. directory represents the parent directory of the current directory. For example, if you are currently in the /home/user directory, then the .. directory would refer to /home.

5. In C:\bacon\eggs\spam.txt, which part is the dir name, and which part is the base name?

* In the path C:\bacon\eggs\spam.txt, the directory name is C:\bacon\eggs, and the base name is spam.txt.

6. What are the three “mode” arguments that can be passed to the open() function?

* There are three basic modes that can be passed as a string to the open() function:
  + 'r' (read mode): This mode is used when you want to read data from a file. The file must already exist, otherwise an error will be raised.
  + 'w' (write mode): This mode is used when you want to write data to a file. If the file does not exist, it will be created. If the file already exists, the previous contents of the file will be overwritten.
  + 'a' (append mode): This mode is used when you want to add data to the end of an existing file. If the file does not exist, it will be created.

7. What happens if an existing file is opened in write mode?

* If an existing file is opened in write mode using the open() function in Python, the previous contents of the file will be overwritten.

8. How do you tell the difference between read() and readlines()?

* In Python, both read() and readlines() are methods used for reading data from a file object, but they differ in the way they return the data.
* The read() method reads the entire contents of the file as a string, starting from the current file position, or from a specified number of bytes if an argument is given.
* The **readlines()** method, on the other hand, reads the entire contents of the file and returns a list of strings, where each string represents a single line of text from the file.
* **read()** returns the entire contents of the file as a string, while **readlines()** returns a list of strings, where each string represents a single line from the file.

9. What data structure does a shelf value resemble?

* In Python, the **shelve** module provides a simple interface to a persistent dictionary, which can be used to store key-value pairs of data. The **shelve** module uses the **pickle** module to serialize and deserialize Python objects, and stores the data in a database file.