1. To what does a relative path refer?

- A relative path refers to the location of a file or directory relative to the current working directory. It does not start with the root directory but provides a path relative to the current location.

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

- An absolute path starts with the root directory of the operating system. In most operating systems, the root directory is represented by a forward slash `/` (e.g., `/home/user/documents` in Linux) or a drive letter followed by a colon (e.g., `C:\Users\user\Documents` in Windows).

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

- `os.getcwd()` returns the current working directory, i.e., the directory in which the Python script or program is currently running.

- `os.chdir(path)` changes the current working directory to the specified path. This allows you to navigate to a different directory within your script or program.

4. What are the `.` and `..` folders?

- The `.` folder represents the current directory or folder.

- The `..` folder represents the parent directory or folder, which is one level up in the directory hierarchy.

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 or dirname is `C:\bacon\eggs`.

  - The base name or basename is `spam.txt`.

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

- The three mode arguments that can be passed to the `open()` function are:

  - `'r'` or `'rt'`: Read mode. Opens a file for reading.

  - `'w'` or `'wt'`: Write mode. Opens a file for writing. Creates a new file if it doesn't exist or truncates the existing file.

  - `'a'` or `'at'`: Append mode. Opens a file for appending. The new data is added at the end of the file.

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

- If an existing file is opened in write mode (`'w'`), the file is truncated, and its contents are erased. The file pointer is positioned at the beginning of the file. If the file doesn't exist, a new file is created.

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

- The `read()` method reads the entire contents of a file as a single string. It returns a string that includes newline characters (`'\n'`) if they are present in the file.

- The `readlines()` method reads the lines of a file and returns a list where each element represents a line. The newline characters (`'\n'`) are included as part of the list elements.

9. What data structure does a shelf value resemble?

- A shelf value in Python resembles a dictionary data structure. It is a persistent, dictionary-like object available in the `shelve` module. The `shelve` module allows you to store and retrieve Python objects in a dictionary-like manner using keys. The shelf data is stored in a file on disk.