**1. How do you distinguish between shutil.copy() and shutil.copytree()?**

**2. What function is used to rename files??**

**3. What is the difference between the delete functions in the send2trash and shutil modules?**

**4.ZipFile objects have a close() method just like File objects’ close() method. What ZipFile method is**

**equivalent to File objects’ open() method?**

**5. Create a programme that searches a folder tree for files with a certain file extension (such as .pdf**

**or .jpg). Copy these files from whatever location they are in to a new folder.**

**SOLUTIONS**

1. ***shutil.copy()*** *is used to copy a single file from one location to another, whereas* ***shutil.copytree()*** *is used to copy an entire directory tree (i.e. a directory and all its subdirectories and files) from one location to another.*
2. *The function* ***os.rename()*** *is used to rename a file in Python.*
3. *The* ***send2trash*** *module's* ***send2trash()*** *function is used to send a file or directory to the trash or recycle bin, whereas* ***shutil.rmtree()*** *is used to permanently delete a directory tree.* ***send2trash()*** *is safer than* ***rmtree()*** *as it only moves files to the trash and doesn't permanently delete them, allowing for recovery in case of accidental deletion.*
4. *The equivalent method to* ***open()*** *for* ***ZipFile*** *objects is* ***ZipFile.\_\_enter\_\_()****. The* ***ZipFile.\_\_enter\_\_()*** *method can be used in a* ***with*** *statement to automatically close the zip file when the block of code within the* ***with*** *statement is finished.*
5. *Here is an example program that searches a folder tree for files with a certain file extension and copies them to a specified location:*

***import os***

***import shutil***

***def copy\_files(src\_folder, dest\_folder, extension):***

***for root, dirs, files in os.walk(src\_folder):***

***for file in files:***

***if file.endswith(extension):***

***src\_path = os.path.join(root, file)***

***dest\_path = os.path.join(dest\_folder, file)***

***shutil.copy2(src\_path, dest\_path)***

***src\_folder = "/path/to/src/folder"***

***dest\_folder = "/path/to/dest/folder"***

***extension = ".pdf"***

***copy\_files(src\_folder, dest\_folder, extension)***