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

Answer 1:

**shutil.copy(src, dst):** Copies a single file from the source src to the destination dst. If dst specifies a directory, the file will be copied into that directory with the same name.

**shutil.copytree(src, dst):** Recursively copies an entire directory tree from the source src to the destination dst. The directory structure, along with its contents, will be duplicated.

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

Answer 2: The os.rename() function is commonly used to rename files. For example:

import os

os.rename("old\_filename.txt", "new\_filename.txt")

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

Answer 3:

**send2trash:** The send2trash module moves files and directories to the system's trash or recycle bin instead of permanently deleting them. The send2trash() function is used for this purpose.

**shutil:** The shutil module has various functions for deleting files and directories, such as shutil.rmtree() for deleting directories and os.remove() for deleting files. These operations are more immediate and directly remove the files or directories.

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

Answer 4: The equivalent method in ZipFile to File objects' open() method is ZipFile() itself. You use it to create or open a ZIP file. For example:

import zipfile

with zipfile.ZipFile('example.zip', 'w') as zip\_file:

# Perform operations on the zip file

**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.**

­Answer 5:

import os

import shutil

def copy\_files\_by\_extension(source\_folder, target\_folder, extension):

if not os.path.exists(target\_folder):

os.makedirs(target\_folder)

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

for file in files:

if file.endswith(extension):

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

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

shutil.copy2(source\_path, target\_path)

# Example usage:

source\_folder = '/path/to/source/folder'

target\_folder = '/path/to/target/folder'

file\_extension = '.pdf'

copy\_files\_by\_extension(source\_folder, target\_folder, file\_extension)