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

shutil.copy() is used to copy a single file from one location to another. shutil.copytree() is used to recursively copy an entire directory and its contents, including all files and subdirectories.

2. What function is used to rename files??

The shutil.move() function is used to rename files. It can also be used to move files to a different directory, effectively renaming the file during the move.

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

The difference between the delete functions in the send2trash and shutil modules is that shutil functions like shutil.rmtree() permanently delete files and directories, and the deleted files cannot be easily recovered. On the other hand, send2trash functions, such as send2trash.send2trash(), move files or directories to the system's trash or recycle bin, making it possible to recover them if needed.

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

The equivalent of File objects' open() method for ZipFile objects is the ZipFile() constructor. You create a ZipFile object by calling zipfile.ZipFile(filename, mode), where filename is the name of the ZIP file and mode is the mode in which to open the file, which can be "r" for reading or "w" for writing.

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.

import os

import shutil

# Source directory to search for files

source\_dir = ‘C:\Users\Lagartha Lothbroke\Desktop\my folder\Datascience\_assigment\Python\_Basic’

# Destination directory to copy the files

destination\_dir = ' C:\Users\Lagartha Lothbroke\Desktop\my folder\Datascience\_assigment\Pyt’

# File extension to search for (e.g., .pdf)

file\_extension = '.pdf'

# Create the destination directory if it doesn't exist

if not os.path.exists(destination\_dir):

os.makedirs(destination\_dir)

# Walk through the source directory and its subdirectories

for foldername, subfolders, filenames in os.walk(source\_dir):

for filename in filenames:

if filename.endswith(file\_extension):

file\_path = os.path.join(foldername, filename)

# Copy the file to the destination directory

shutil.copy(file\_path, destination\_dir)

print(f'Copied: {file\_path} to {destination\_dir}/{filename}')