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

:- shutil.copy(src, dst) - This function is used to copy a file from the source location (src) to the destination location (dst).

shutil.copytree(src, dst) - This function is used to recursively copy an entire directory tree from the source location (src) to the destination location (dst).

2. What function is used to rename files?

:- The os.rename() function takes two arguments: the old filename and the new filename. The old filename is the name of the file that we want to rename, and the new filename is the new name that we want to give to the file.

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

:- The send2trash module provides a function called send2trash.send2trash() that sends files and directories to the operating system's trash or recycle bin instead of permanently deleting them.

shutil module provides a function called shutil.rmtree() that permanently deletes a directory and all of its contents

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

:- The ZipFile() constructor creates a new ZipFile object and opens a ZIP archive file. It takes two arguments: the first argument is the name of the ZIP archive file to be opened, and the second argument is an optional mode string that specifies how the ZIP archive file should be opened.

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

# Set the source directory and the target directory

source\_dir = '/path/to/source/directory'

target\_dir = '/path/to/target/directory'

# Set the file extension to search for

file\_ext = '.pdf'

# Create the target directory if it does not exist

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

os.makedirs(target\_dir)

# Traverse the source directory tree and copy matching files to the target directory

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

for file in files:

if file.endswith(file\_ext):

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

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

shutil.copy(source\_file\_path, target\_file\_path)

print(f"Copied {source\_file\_path} to {target\_file\_path}")