**PYTHON ASSIGNMENT - 10**

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

ANSWER:

shutil.copy() is used to copy a single file from one location to another.

shutil.copytree() is used to recursively copy an entire directory tree from one location to another, including all subdirectories and files.

2. What function is used to rename files??

ANSWER:

shutil.move()

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

ANSWER:

The send2trash module's send2trash() function sends files and directories to the system's trash or recycle bin instead of permanently deleting them, providing a safer way to delete files.

The shutil module provides shutil.rmtree() function to delete an entire directory tree, but it doesn't send the deleted items to the system's trash or recycle bin; instead, it deletes them permanently.

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

ANSWER:

The equivalent of the File objects' open() method for ZipFile objects is the ZipFile() constructor itself, which is used to open a zip file for reading, writing, or appending.

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:

import os

import shutil

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

# Create the target folder if it doesn't exist

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

os.makedirs(target\_folder)

# Walk through the source folder tree

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

for filename in filenames:

# Check if the file has the specified extension

if filename.endswith(extension):

source\_file = os.path.join(foldername, filename)

target\_file = os.path.join(target\_folder, filename)

# Copy the file to the target folder

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

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

# Example usage

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

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

extension = '.pdf' # Change this to the desired file extension

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