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

* **shutil.copy()** copies a single file to a new location, while **shutil.copytree()** copies an entire directory and its contents to a new location. It's important to note that **shutil.copy()** will overwrite an existing file with the same name, while **shutil.copytree()** will raise an exception if the destination directory already exists.

2. What function is used to rename files??

* In Python, we can use the **os** module to rename files using the **rename()** function.
* For ex;
  + import os

os.rename('old\_file.txt', 'new\_file.txt')

* This would rename the file **old\_file.txt** to **new\_file.txt**.

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

* The main difference between the delete functions in the **send2trash** and **shutil** modules is that **send2trash** sends files or directories to the system trash instead of permanently deleting them, while **shutil** permanently deletes 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?

* We can use the **ZipFile()** constructor to create a **ZipFile** object, which can be used to read, write, and manipulate Zip files. Here's an example:
* import zipfile

# Open a Zip file for reading

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

# Perform operations on the Zip file here

...

# Open a Zip file for writing

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

# Add files to the Zip file here

...

* n the above example, the **ZipFile()** constructor is used to create a **ZipFile** object for the Zip file **example.zip**. The second argument to the constructor specifies the mode in which the Zip file should be opened (**'r'** for reading, **'w'** for writing, **'x'** for exclusive creation, and **'a'** for 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.

🡺 import os

import shutil

# Set the folder to search and the file extension to look for

folder\_to\_search = '/path/to/folder'

file\_extension = '.pdf'

# Set the folder to copy the files to

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

# Walk through the folder tree and find files with the given file extension

for foldername, subfolders, filenames in os.walk(folder\_to\_search):

for filename in filenames:

if filename.endswith(file\_extension):

# Construct the full path of the source file

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

# Construct the full path of the destination file

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

# Copy the file to the destination folder

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