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

**shutil.copy(): This function copies a single file from one location to another. If the destination file already exists, it will be overwritten by the source file.**

**shutil.copytree(): This function recursively copies an entire directory and its contents from one location to another. If the destination directory already exists, it will raise an error.**

2. What function is used to rename files?? **os.rename()**

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

**send2trash: This module provides the function send2trash() which moves a file or folder to the trash or recycle bin, instead of permanently deleting it. This is useful if you want to keep a backup of the file in case you need to recover it later.**

**shutil: This module provides the function rmtree() which permanently deletes a directory and all 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 equivalent method for opening a zip file in the ZipFile class is the ZipFile constructor. For example: zip\_file = ZipFile("file.zip", "r") opens the zip file "file.zip" in read mode.**

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**

**def search\_and\_copy(src\_folder, dest\_folder, ext):**

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

**for file in files:**

**if file.endswith(ext):**

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

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

**shutil.copy2(src\_path, dest\_path)**

**src\_folder = '<source>'**

**dest\_folder = '<destination>'**

**ext = '.pdf'**

**search\_and\_copy(src\_folder, dest\_folder, ext)**