1. Add the current date to the text file today.txt as a string.

**Ans:- import datetime**

**# Get the current date**

**current\_date = datetime.date.today()**

**# Format the date as a string**

**formatted\_date = current\_date.strftime("%Y-%m-%d")**

**# Open the file in append mode and write the formatted date**

**with open("your\_file.txt", "a") as file:**

**file.write(formatted\_date + "\n")**

2. Read the text file today.txt into the string today\_string.

**Ans:- with open("today.txt", "r") as file:**

**today\_string = file.read()**

3. Parse the date from today\_string.

**Ans:- import datetime**

**date\_format = "%Y-%m-%d" # Define the expected date format**

**parsed\_date = datetime.datetime.strptime(today\_string.strip(), date\_format).date()**

4. List the files in your current directory

**Ans:-**  **import os**

**# Get the current directory**

**current\_directory = os.getcwd()**

**# List the files in the current directory**

**file\_list = os.listdir(current\_directory)**

**# Print the file names**

**for file\_name in file\_list:**

**print(file\_name)**

5. Create a list of all of the files in your parent directory (minimum five files should be available).

**Ans:- import os**

**# Specify the path to the parent directory**

**parent\_directory = "../" # Assuming the parent directory is one level above the current directory**

**# Get the list of files in the parent directory**

**file\_list = os.listdir(parent\_directory)**

**# Filter out directories and retain only file names**

**file\_list = [file\_name for file\_name in file\_list if os.path.isfile(os.path.join(parent\_directory, file\_name))]**

**# Print the file names**

**for file\_name in file\_list:**

**print(file\_name)**

6. Use multiprocessing to create three separate processes. Make each one wait a random number of seconds between one and five, print the current time, and then exit.

**Ans:- import multiprocessing**

**import time**

**import random**

**from datetime import datetime**

**def print\_current\_time():**

**wait\_time = random.randint(1, 5)**

**time.sleep(wait\_time)**

**current\_time = datetime.now().strftime("%H:%M:%S")**

**print("Process ID:", multiprocessing.current\_process().name, "- Current Time:", current\_time)**

**if \_\_name\_\_ == '\_\_main\_\_':**

**processes = []**

**for \_ in range(3):**

**process = multiprocessing.Process(target=print\_current\_time)**

**process.start()**

**processes.append(process)**

**for process in processes:**

**process.join()**

7. Create a date object of your day of birth.

**Ans:- from datetime import date**

**birth\_date = date(1997, 12, 7)**

8. What day of the week was your day of birth?

**Ans:- from datetime import date**

**birth\_date = date(1997, 12, 7)**

**day\_of\_week = birth\_date.strftime("%A")**

9. When will you be (or when were you) 10,000 days old?

**Ans:- from datetime import date, timedelta**

**birth\_date = date(1997, 12, 7)**

**age\_in\_days = timedelta(days=10000)**

**future\_date = birth\_date + age\_in\_days**

**print("The date when you will be 10,000 days old:", future\_date)**