**Duration – 60 min**

## Question 1: [14 marks] Smart Sprinkler System Control Based on Season

In a smart garden system, the sprinkler is controlled based on the current **soil moisture level**, the **weather forecast**, and the **season**.

The sprinkler system should be turned on or off depending on the following conditions:

- In *summer*, the sprinkler turns on if the soil moisture is below 25% and it is not expected to rain.
- In *autumn or spring*, the sprinkler turns on if the soil moisture is below 15%, regardless of the weather.

The function should return **True** if the sprinkler is on, and **False** otherwise.

You are given the following constants, which ***you must use in your implementation***:

```
DRY_SOIL_SUMMER = 25.0  # Soil moisture threshold in summer
DRY_SOIL_AUTUMN_SPRING = 15.0  # Soil moisture threshold in autumn and spring
RAIN_EXPECTED = 'rain expected'
NO_RAIN = 'no rain expected'
SUMMER = 'summer'
AUTUMN = 'autumn'
SPRING = 'spring'
```