15 question

```python
import cv2

import numpy as np


# Step 1: Read the image

image = cv2.imread(r"C:\Users\SAIL\Downloads\CV\forest.jpg")    # Replace with the path to your image

if image is None:

    raise ValueError("Image not found. Please check the path.")


# Step 2: Convert to grayscale

gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)


# Step 3: Convert to float32 for Harris Corner Detection

gray = np.float32(gray)


# Step 4: Apply Harris Corner Detection

dst = cv2.cornerHarris(gray, blockSize=2, ksize=3, k=0.04)


# Step 5: Dilate corner points for better visibility

dst = cv2.dilate(dst, None)


# Step 6: Create a copy of original image to mark corners

corner_img = image.copy()

corner_img[dst > 0.01 * dst.max()] = [0, 0, 255]    # Mark corners in red
```

Step 7: Display original and result side-by-side

cv2.imshow('Original Image', image)

cv2.imshow('Harris Corners', corner_img)

cv2.waitKey(0)

cv2.destroyAllWindows()