12 question

```
import cv2


# Step 1: Read the image
image_path = r"C:\Users\SAIL\Downloads\CV\snow.jpg"  # Replace with your image path
image = cv2.imread(image_path)


# Check if the image is loaded successfully
if image is None:
    print("Error: Could not load image.")
    exit()


# Step 2: Get the image dimensions
height, width = image.shape[:2]


# Step 3: Define the rotation matrix to perform a 270-degree clockwise rotation
# 270 degrees clockwise is equivalent to a 90 degrees counterclockwise rotation
rotation_matrix = cv2.getRotationMatrix2D((width // 2, height // 2), 90, 1)


# Step 4: Apply the rotation to the image
rotated_image = cv2.warpAffine(image, rotation_matrix, (width, height))


# Step 5: Display the original and rotated images
```

cv2.imshow("Original Image", image)

cv2.imshow("270-degree Rotated Image (Clockwise along Y-axis)", rotated_image)

Wait for a key press and close all windows

cv2.waitKey(0)

cv2.destroyAllWindows()