**Operating System**

**(CT-353)**

Lab no 11

**Implement the above code and paste the screen shot of the output.**

**CODE:**

#include <stdio.h>

#include <stdlib.h> // for exit()

int main() {

int base[20], limit[20], n, i, pa, segment, offset;

printf("Program for Segmentation\n");

printf("Enter the number of segments: ");

scanf("%d", &n);

printf("Enter the base address and limit register for each segment:\n");

for (i = 0; i < n; i++) {

printf("Segment %d - Base: ", i);

scanf("%d", &base[i]);

printf("Segment %d - Limit: ", i);

scanf("%d", &limit[i]);

}

printf("Enter the segment number: ");

scanf("%d", &segment);

printf("Enter the offset: ");

scanf("%d", &offset);

if (segment >= n) {

printf("Invalid segment number.\n");

} else if (offset >= limit[segment]) {

printf("Offset exceeds the limit of the segment.\n");

} else {

pa = base[segment] + offset;

printf("\n\tSegment\tBase\tOffset\tPhysical Address\n");

printf("\t%d\t%d\t%d\t%d\n", segment, base[segment], offset, pa);

}

return 0;

}

**OUTPUT:**

