

Bachelor of Science in Computer Science (2020/2021)
Year II Semester II Examination
CO2213 – Practical work on CO2223

Answer All Questions

Time: 02 Hours

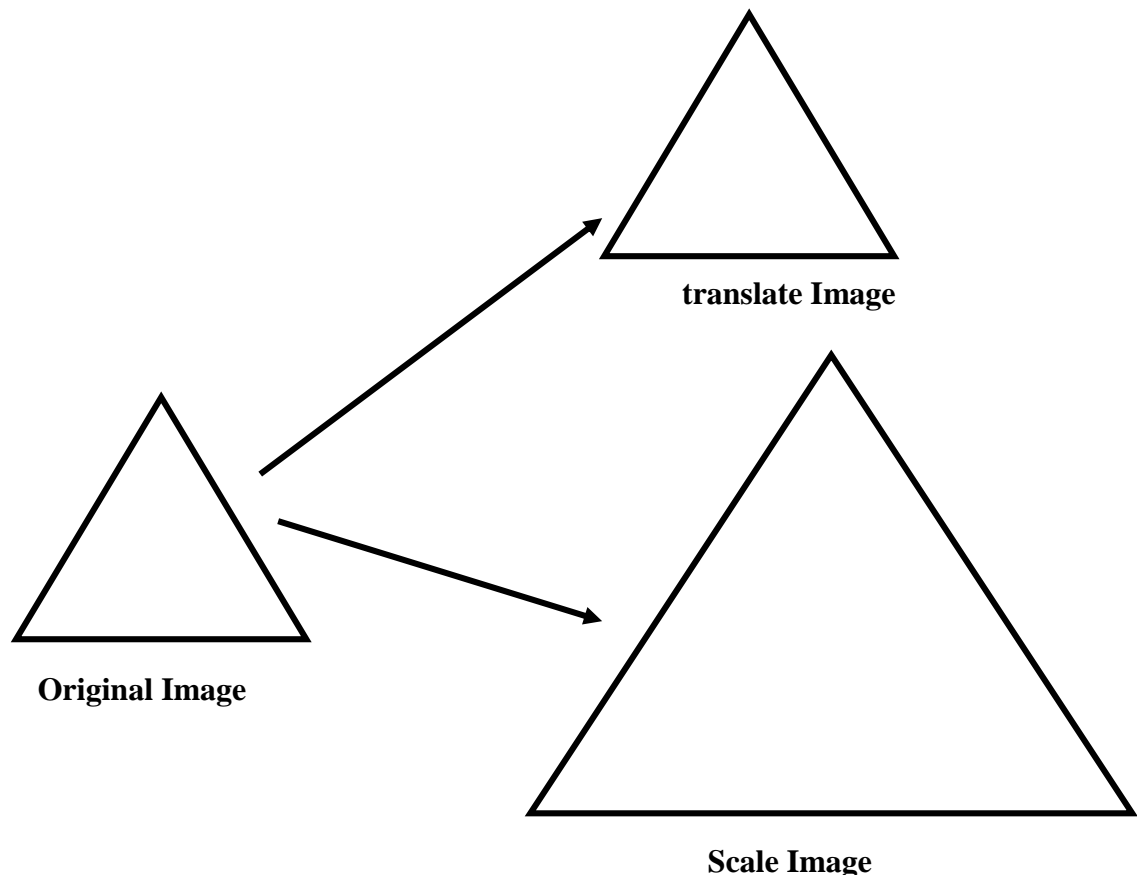
Write a Java method declared by `dda (Graphics g, int x0, int y0, int x1, int y1)` to implement the DDA line drawing algorithm, where (x_0, y_0) and (x_1, y_1) are the extreme end points of the line.

Write a Java method declared by `void translatePoint (Graphics g, int P[], int T[])` to translate the given point by (x, y) .

Write a Java method declared by `void translateLine (Graphics g, int P[][2], int T[])` to implement the translate both of the end points of the line.

Write a Java method declared by `void scale (Graphics g, int x[], int y[], int sx, int sy)` to implement the multiplying each vertex coordinate (x, y) of the polygon by scaling factor sx and sy .

Write a Java code to perform following transformation as shown below by using written methods.



Each coordinate is translated by the coordinates of $(7, 9)$ and scaled by factors of 4 and 8 for sx and sy , respectively.