S.B.B alias Appasaheb Jedhe College, Pune

S.Y. B.Sc. (Computer Science)

Internal Examination, 2017

Subject: Computational Geometry(M-I)

Time: 1 hour   Marks-10

Q- 1) Attempt all of the following.   [2*2]

    1) Apply scaling in X-cordinate by factor 4 units on point P[-1 4]

    2)Write the general 2x2 relation matrix about origin through an

    Angle $\theta=270^0$

Q-2) Attempt the following (Any two)   [2*3]

    1) Find the Combined transformation matrix for the following sequence

    of transformation
    1)Reflection through x-axis

    2)Rotation about origin through angle 270^0

    3)Scaling in x and y direction by factors 2 and -1 respectively.

    Further apply it on point P[3 -2]

    2) If the circle of circumference 14π is uniformly scaled by 3 units,

    What is the area of the transformed object?

    3) The position vector of the point A and B are [2 3] and [-4 7]

    Respectively.The Straight line AB is transformed to the straight

    Line AB is transformed to the straight line A'B' using the

    transformation matrix [T]= $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$.Find the slope of A'B'.