Q.1) Bar \( BDE \) is attached to two links \( AB \) and \( CD \). Knowing that at the instant shown link \( AB \) rotates with a constant angular velocity of 3 rad/s clockwise, determine the acceleration \((a)\) of point \( D \), \((b)\) of point \( E \).

Q.2) Collar \( D \) slides on a fixed horizontal rod with a constant velocity of 0.6 m/s to the right. Knowing that at the instant shown \( x=0 \), determine \((a)\) the angular acceleration of bar \( BD \), \((b)\) the angular acceleration of bar \( AB \).
Q.3) The cross $BHDF$ is supported by two links $AB$ and $DE$. Knowing that at the instant shown link $AB$ rotates with a constant angular velocity of 4 rad/s clockwise, determine (a) the angular velocity of the cross, (b) the angular acceleration of the cross, (c) the acceleration of point $H$.

Q.4) Collar $D$ slides on a fixed vertical rod. Knowing that the disk has a constant angular velocity of 15 rad/s clockwise, determine the angular acceleration of bar $BD$ and the acceleration of collar $D$ when (a) $\theta=0$, (b) $\theta=90^\circ$, (c) $\theta=180^\circ$. 