Q1 False

The Gordon Model does not assume that firms will live forever, only that their dividend cash flows are perpetual, which is the case even after takeovers and mergers. Also, the model accounts for inflation expectation in its required rate of return — higher inflation expectation leads to higher expected return, vice versa.

Q2.

a) $2B + B = \$750{,}000$

$B = \$250{,}000$, $A = \$500{,}000$

$w_A = \frac{500k}{750k} = 2/3$, $w_b = \frac{250k}{750k} = 1/3$

b) $E(r) = w_A r_A + w_B r_B$

$= 2/3 \times 15\% + 1/3 \times 20\%$

$= 16.67\%$

c) $\sigma_p = \sqrt{w_A^2 \sigma_A^2 + w_B^2 \sigma_B^2 + 2 w_A w_B \rho \sigma_A \sigma_B}$

$= \sqrt{0.0766} = 27.69\%$

Q2. d) Disagree

It is true that I've taken more risk by purchasing share B, but not only is this expected for my returns increased. I've actually benefitted from diversification due to the less than one correlation between A and B. Moreover, diversification only eliminates unsystematic risk, which the SD is not a suitable measure for for this discussion.