2.7 $Y_{TOT} = \frac{1}{Z_C} + \frac{1}{Z_L} + \frac{1}{R} = \frac{1}{-j0.2} + \frac{1}{j0.1} + \frac{1}{10}$

$= j5 - j10 + 0.1 = 0.1 - j5 = 5\angle -88.9^\circ$ ℧

$I_{TOT} = V Y_{TOT} = (1\angle 0)(5\angle -88.9) = 5\angle -88.9$ A

$S = V I_{TOT}^* = (1\angle 0)(5\angle +88.9) = 5\angle 88.9$

$S = 0.1 + j5$, so $\boxed{P = 0.1\text{ W}, Q = +5\text{ VAr}}$

Easy way — $P = V^2/R = 1^2/10 = \underline{0.1\text{ W}}$

$Q_L = V^2/X_L = 1^2/0.1 = 10\text{ VAr}$

$Q_C = -V^2/X_C = -1^2/0.2 = -5\text{ VAr}$

$Q_{TOT} = (10 - 5) = \underline{5\text{ VAr}}$