

A) s-plane poles of $G(s)$:

$$G(s) = \frac{0.0850}{s^4 + 0.4174s^3 + 1.0871s^2 + 0.2805s + 0.1512}$$

Using MATLAB, poles are $s = -0.147597 \pm 0.38759i$,
 $-0.0611034 \pm 0.935565i$

B-F, see attached MATLAB

E) z-plane poles based on values of T :

accurate & stable: $T = 0.01 \rightarrow z = -0.2 + 0.4i$

inaccurate: $T = 0.5 \rightarrow z = -0.2 - 0.4i$

unstable: $T = 1 \rightarrow z = -0.2 - 0.9i$