Q1) Textbook Problem 2.2

Q2) Textbook Problem 2.11

Q3) Textbook Problem 2.13

Q4) Textbook Problem 2.20

Q5) Textbook Problem 2.27

Q6) A 3-phase Δ/Y transformer is assembled by connecting three 830-VA, 240/120-V single phase transformers. Each transformer parameters are as follow:

$R_P = 15.5 \ \Omega$, $X_P = 18.2 \ \Omega$, $R_{CP} = 6.54 \ k\Omega$, $X_{MP} = 4.64 \ k\Omega$
$R_S = 2.4 \ \Omega$, $X_S = 2.8 \ \Omega$

a) Determine the 3-phase transformer bank's ratings (voltages and power).
b) Draw the winding arrangements, equivalent Y/Y connections, and per-phase equivalent circuit.