

. . .

Name:

Date:

Section

Culminating Series & Parallel Circuit Problems

Show order of operations, formulas, substitution, units, and all rough work calculations using appropriate units of measure, 2 decimal places, with all answers circled. Half mark for the correct answer, the other half for all work shown. **One Mark** for properly & correctly double-checking, using a formula not yet used.

| | R ₁ =16.48 Ω | | | Series/Parallel laws | | | | |
|-----------------------------|-------------------------|---------------------------------|----------|----------------------|-------|-------|----------------|----------------|
| | | | | | L_1 | L_2 | L ₃ | L _T |
| $0 P_{T} = 6.28 \text{ kW}$ | | E ₂ =174.64 V | 0 | Εv | | | | |
| | | $E_2=174.64 V$ $P_2=2.58 kW$ | Ohms Law | ΙA | | | | |
| | | | | RΩ | | | | |
| | | | W | P w | | | | |



| O I _T =26.31 mA < | R ₁ =11.73kΩ | $R_3=1.59 \text{ k}\Omega$ |
|------------------------------|-------------------------|----------------------------|
| | | |

| | Series/Parallel laws | | | | | | |
|-----------------|----------------------|-------|-------|----------------|----------------|--|--|
| | | L_1 | L_2 | L ₃ | L _T | | |
| Ohms Law | Εv | | | | | | |
| | ΙA | | | | | | |
| | RΩ | | | | | | |
| W | P w | | | | | | |