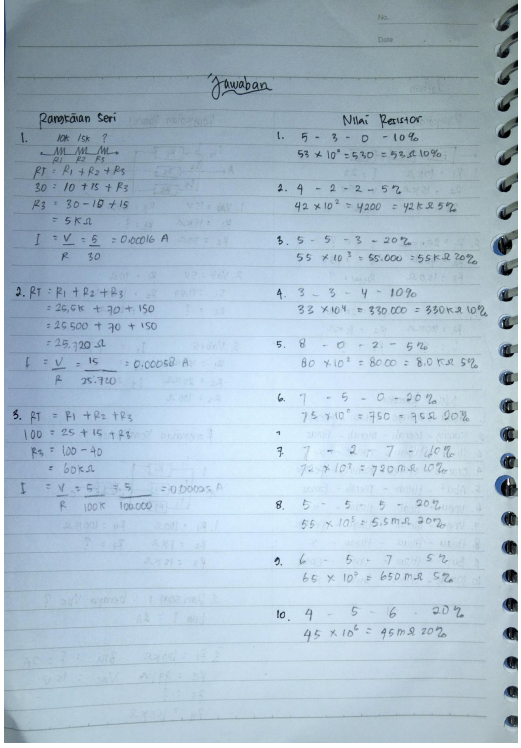

Jawaban

Rangkaian Seri

1. 10K 15K ?
   R1 R2 R3
   RT = R1 + R2 + R3
   30 = 10 + 15 + R3
   R3 = 30 − 10 + 15
   = 5 KΩ
   I = V/R = 5/30 = 0.00016 A

2. RT = R1 + R2 + R3
   = 25,5K + 70 + 150
   = 25.500 + 70 + 150
   = 25.720 Ω
   I = V/R = 15/25.720 = 0.00058 A

3. RT = R1 + R2 + R3
   100 = 25 + 15 + R3
   R3 = 100 − 40
   = 60 KΩ
   I = V/R = 5/100K = 5/100.000 = 0.00005 A

Nilai Resistor

1. 5 - 3 - 0 - 10%
   53 × 10⁰ = 530 = 53 Ω 10%

2. 4 - 2 - 2 - 5%
   42 × 10² = 4200 = 42 KΩ 5%

3. 5 - 5 - 3 - 20%
   55 × 10³ = 55.000 = 55 KΩ 20%

4. 3 - 3 - 4 - 10%
   33 × 10⁴ = 330.000 = 330 KΩ 10%

5. 8 - 0 - 2 - 5%
   80 × 10² = 8000 = 8.0 KΩ 5%

6. 7 - 5 - 0 - 20%
   75 × 10⁰ = 750 = 750 Ω 20%

7. 7 - 2 - 7 - 10%
   72 × 10⁷ = 720 MΩ 10%

8. 5 - 5 - 5 - 20%
   55 × 10⁵ = 5,5 MΩ 20%

9. 6 - 5 - 7 - 5%
   65 × 10⁷ = 650 MΩ 5%

10. 4 - 5 - 6 - 20%
    45 × 10⁶ = 45 MΩ 20%

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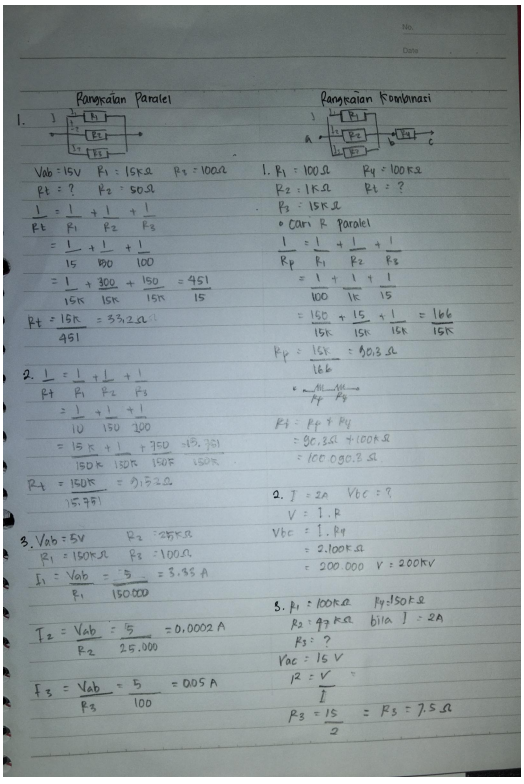
Tugas fisika Dasar



Rangkaian Paralel

1.
   Vab = 15V R1 = 15KΩ R2 = 100Ω
   Rt = ? R2 = 50Ω
   1/Rt = 1/R1 + 1/R2 + 1/R3
   = 1/15 + 1/100 + 1/100
   = 1/15K + 300/15K + 150/15K = 451/15
   Rt = 15K/451 = 33,2 Ω

2. 1/Rt = 1/R1 + 1/R2 + 1/R3
   = 1/10 + 1/150 + 1/200
   = 15K + 1/150K + 750 = 15.781/150K
   Rt = 150K/15.781 = 9,5 Ω

3. Vab = 5V R2 = 25KΩ
   R1 = 150KΩ R3 = 100Ω
   I1 = Vab/R1 = 5/150.000 = 3.33 A
   I2 = Vab/R2 = 5/25.000 = 0.0002 A
   I3 = Vab/R3 = 5/100 = 0.05 A

Rangkaian Kombinasi

1. R1 = 100Ω R4 = 100KΩ
   R2 = 1KΩ Rt = ?
   R3 = 15KΩ
   • Cari R Paralel
   1/Rp = 1/R1 + 1/R2 + 1/R3
   = 1/100 + 1/1K + 1/15
   = 150/15K + 15/15K + 1/15K = 166/15K
   Rp = 15K/166 = 90,3 Ω
   Rt = Rp + R4
   = 90,3Ω + 100KΩ
   = 100.090,3 Ω

2. I = 2A Vbc = ?
   V = I . R
   Vbc = I . Rp
   = 2.100KΩ
   = 200.000 V = 200KV

3. R1 = 100KΩ R4 = 150KΩ
   R2 = 97KΩ bila I = 2A
   R3 = ?
   Vac = 15 V
   R = V/I
   R3 = 15/2 = R3 = 7.5 Ω