IDP Questions Creation

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to learn solving these questions.

1 Power Systems

1. Two resistances R_1 and R_2 are connected in series. What is the equivalent resistance ?

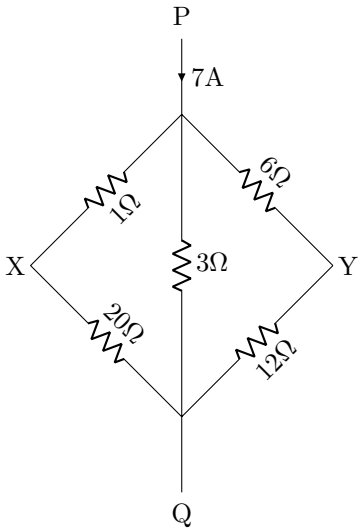
   A. 86.00 Ω

   B. 33.00 Ω

   C. 53.00 Ω

   D. 20.34 Ω

2. Find the potential difference between P and Q.



   A. 3.06

   B. 2.29

   C. 16.04

   D. 0.44

3. A transformer has its maximum efficiency of 98% at 25 kVA at upf. During the day it is loaded as follows:
   12 hours : 1 kW at pf 0.5 lag
   6 hours : 6 kW at pf 0.5 lag
   6 hours : 14 kW at pf 0.5 lag
   Find the all day efficiency of the transformer

   A. 47.004 %

   B. 5.993 %

   C. -76.915 %

   D. 94.007 %

4. A transformer has its maximum efficiency of 98% at 26 kVA at upf. During the day it is loaded as follows:
   12 hours : 4 kW at pf 0.6 lag
   6 hours : 9 kW at pf 0.7 lag
   6 hours : 17 kW at pf 0.4 lag
   Find the all day efficiency of the transformer

   A. 94.787 %

   B. -50.181 %

   C. 47.394 %

   D. 5.213 %

5. Two resistances R_1 and R_2 are connected in series. What is the equivalent resistance ?

   A. 66.00 Ω

   B. 35.00 Ω

   C. 31.00 Ω

   D. 16.44 Ω

6. A transformer has its maximum efficiency of 98% at 22 kVA at upf. During the day it is loaded as follows:
   12 hours : 6 kW at pf 0.5 lag
   6 hours : 8 kW at pf 0.6 lag
   6 hours : 19 kW at pf 0.4 lag
   Find the all day efficiency of the transformer

   A. -36.443 %

   B. 5.249 %

   C. 94.751 %

   D. 47.376 %

2 Electric Circuits

7. What will be the current density of metal if a current of 46A is passed through a cross-sectional area of $0.1m^2$?

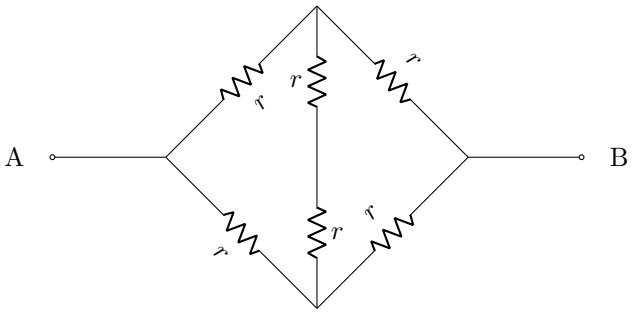
   A. 0.0022 A/m^2

   B. 4.6000 A/m^2

   C. 46000.0000 A/m^2

   D. 460.0000 A/m^2

8. Find the equivalent resistance between the points A and B for r = 182 Ω



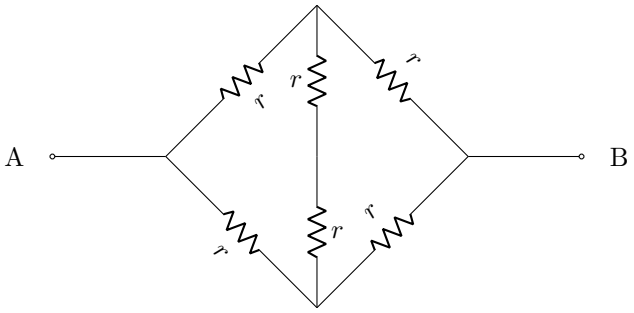
   A. 0.005 Ω

   B. 364.000 Ω

   C. 182.000 Ω

   D. 728.000 Ω

9. Find the equivalent resistance between the points A and B for r = 443 Ω



   A. 0.002 Ω

   B. 886.000 Ω

   C. 443.000 Ω

   D. 1772.000 Ω

* * * All the Best * * *