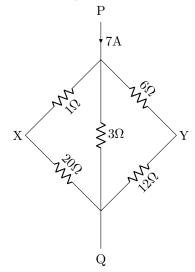
Name: Roll no: Code : TJKZMLAZFS

Scan/click for YouTube playlist 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. 86.00Ω
 - Β. 33.00 Ω
 - C. 53.00Ω
 - D. 20.34Ω
- 2. Find the potential difference between P and Q.



- A. 0.44
- B. 2.29

C. 16.04

D. 3.06

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 $0.5 \log$ 6 hours : 6 kW at pf $0.5 \log$

6 hours : 14 kW at pf 0.5 lag

Find the all day efficiency of the transformer

- A. -76.915 %
- B. 47.004 %
- C. 5.993 %
- 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:

 $12~\mathrm{hours}:\,4~\mathrm{kW}$ at pf $0.6~\mathrm{lag}$

 $6~\mathrm{hours}$: $9~\mathrm{kW}$ at pf $0.7~\mathrm{lag}$

 $6~\mathrm{hours}:\,17~\mathrm{kW}$ at pf $0.4~\mathrm{lag}$

Find the all day efficiency of the transformer

- A. 5.213 %
- B. 94.787 %
- C. -50.181 %
- D. 47.394 %
- 5. Two resistances R_1 and R_2 are connected in series. What is the equivalent resistance?
 - A. 66.00Ω
 - B. 35.00Ω
 - C. 31.00Ω
 - 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:

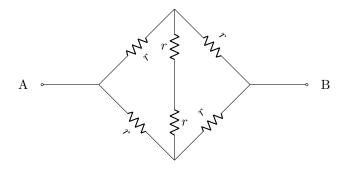
 $12 \ hours: 6 \ kW \ at \ pf \ 0.5 \ lag$ $6 \ hours: 8 \ kW \ at \ pf \ 0.6 \ lag$ $6 \ hours: 19 \ kW \ at \ pf \ 0.4 \ lag$

Find the all day efficiency of the transformer

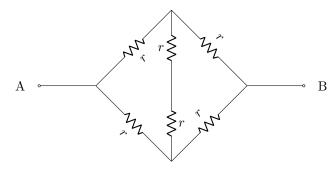
- A. 5.249 %
- B. 94.751~%
- C. 47.376%
- D. -36.443 %

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. $0.0022 \text{ A}/m^2$
 - B. $46000.0000 \text{ A}/m^2$
 - C. $460.0000 \text{ A}/m^2$
 - D. $4.6000 \text{ A}/m^2$
- 8. Find the equivalent resistance between the points A and B for r = 182 Ω



- A. 0.005Ω
- B. 182.000Ω
- C. 364.000Ω
- D. 728.000Ω
- 9. Find the equivalent resistance between the points A and B for r = 443 Ω



- A. $0.002~\Omega$
- B. 1772.000Ω
- C. 886.000 Ω
- D. 443.000 Ω

* * * All the Best * * *



 Scan / click the QR code to submit your answers.