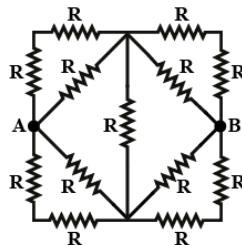


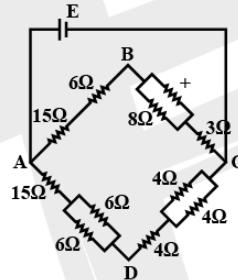
DPP-5

- Q.1.** Thirteen resistance each of resistance R ohm are connected in the circuit as shown in the figure. The effective resistance between A and B is :-

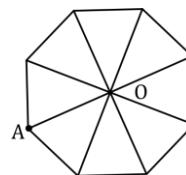


- (A) $\frac{4R}{3}\Omega$ (B) $2R\Omega$ (C) $R\Omega$ (D) $\frac{2R}{3}\Omega$

- Q.2.** In the following circuit diagram the value of resistance X for the potential difference between B and D is zero :-

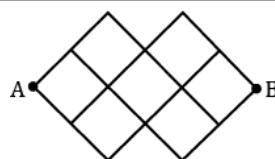


- Q.3.** Find the equivalent resistance of the network shown in the figure, across the points O and A. The resistance of each branch of the octagon is r_0 .



- (A) $\frac{69r_0}{149}$ (B) $\frac{61r_0}{123}$ (C) $\frac{r_0}{8}$ (D) N. O. T.

- Q.4.** Each branch in the following circuit has a resistance R . The equivalent resistance of the circuit between the point A and B is:



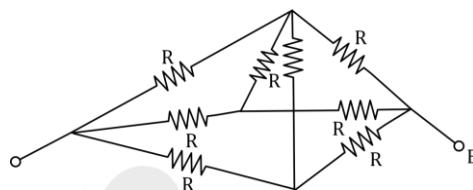
(A) R

(B) 2R

(C) 4R

(D) 8R

Q.5. In the given figure we wish to determine equivalent resistance between point A and B.

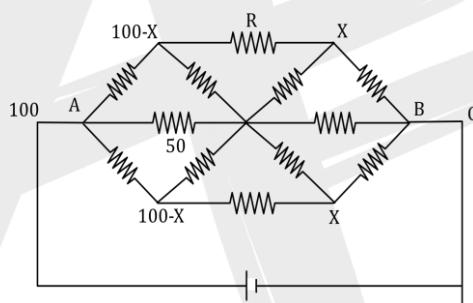


(A) R

(B) $\frac{2R}{5}$ (C) $\frac{2R}{3}$

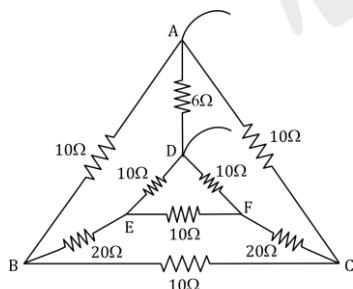
(D) CR

Q.6. Determine equivalent resistance between A and B.

(A) $\frac{4R}{5}$ (B) $\frac{R^2}{3+R}$ (C) $\frac{R}{3+R}$

(D) 3R

Q.7. In the Fig. the resistances are connected as shown. Determine the equivalent resistance between points A and D.



(A) 1Ω

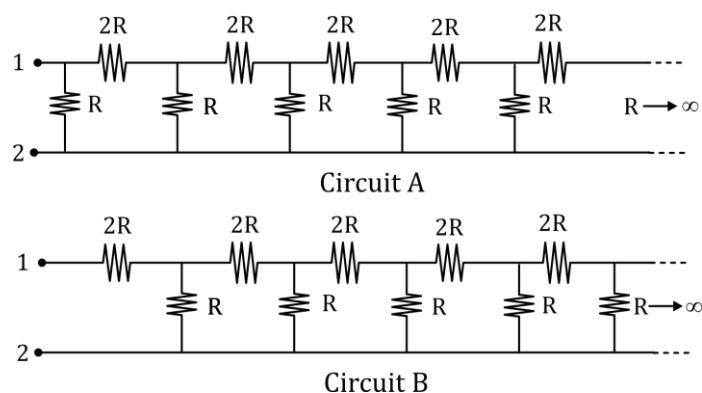
(B) 2Ω

(C) 6Ω

(D) 4.7Ω



- Q.8.** Two circuits [as shown in Fig.] are called circuit A and circuit B. The equivalent resistance of circuit A is x and that of circuit B is y between 1 and 2 .



- (A) $y > x$ (B) $x = (\sqrt{3} + 1)R$ (C) $xy = 2R^2$ (D) $x - y = 2R$

- Q.9.** Find R_{AB} given resistance of each branch is R .

- (A) $\frac{9R}{4}$ (B) $\frac{2R}{3}$ (C) $\frac{7R}{4}$ (D) $3R$



ANSWER KEY

1. (D) 2. (C) 3. (A) 4. (B) 5. (C) 6. (A) 7. (D)
8. (A,B,C,D) 9. (A)

