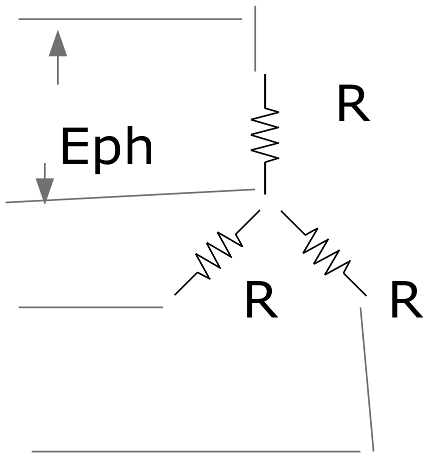
G049 Online Test

Ref425

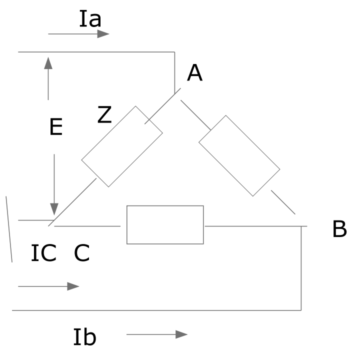


R= 100 Ω each, Eph= 173.2V

The neutral current flow in the given circuit is

A	In = -0.5 + j 0.866 A	B	In = 8.66 – j0.5A
C	In = 0A	D	In = 8.66 + j0.5A
	Answer		

Ref426



Z = 50 (Angle 0) Ω E = 400V. The currents in A,B, C lines are

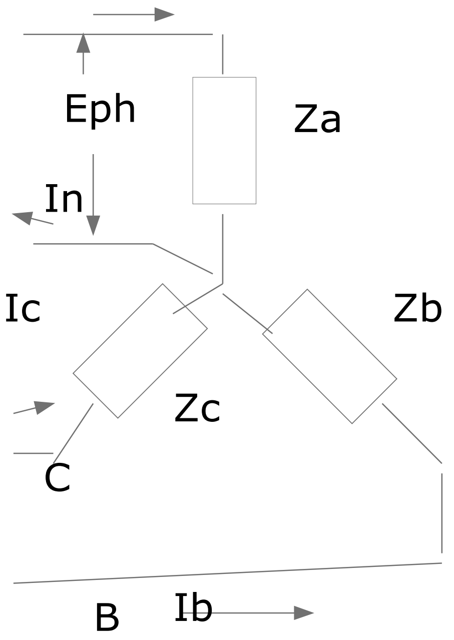
A	Ia= 13.9$\angle$-30 A, Ib=13.9$\angle$-150A Ic=13.9$\angle$-90 A	B	Ia= 13.9$\angle$ 30 A, Ib=13.9$\angle$ 150A Ic=13.9$\angle$90 A
C	Ia= 13.9$\angle$ 0 A, Ib=13.9$\angle$120A Ic=13.9$\angle$-120 A	D	Ia= 13.9$\angle$0 A, Ib=13.9$\angle$ -120A Ic=13.9$\angle$120 A
	Answer		

Ref427

Three phase power and power factor angle measured by 2 watts meters method can be calculated by

A	Wt = W1=W2 $\Phi = \tan^{-1}$ (W1 –W2) / (W1+W2)	B	Wt = W1=W2 $\Phi = \tan^{-1}$ (W1 +W2) / (W1-W2)
C	Wt = W1+W2 $\Phi = \tan^{-1}\sqrt{3}$ (W1 –W2) / (W1+W2)	D	Wt = W1-W2 $\Phi = \tan^{-1}\sqrt{3}$ (W1 –W2) / (W1+W2)
	Answer		

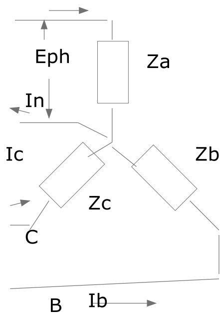
Ref 428



Eph= 100V, Za= 100Ω, Zb =100Ω in series with 66.3µF, Zc=100Ω in series with139.2mH f= 50HZ. Calculate the current in neutral wire (In)

A	In- 0.878 $\angle$ 0.978 A	B	In- 0.878 $\angle$ 0 A
C	In- 0.878 $\angle$ 30 A	D	In- 0 A
	Answer		

Ref429



If the above star connection is converted to delta, Zab is equal to

A	(Za+Zb+Zc)/ Zc	B	(Za+Zb+Zc)/ ZaZbZc
C	(Za+Zb+Zc)/ Za	D	(ZaZb+ZbZc+ZcZa)/ Zc
	Answer		

Ref430

A three phase 415V system's neutral wire is broken. The following line currents are flowing.

Za= $50\angle 0$ Ω, Ia= $1.55\angle -8.5$ A

Zb= $50\angle 0$ Ω, Ib= $2.47\angle -170$ A

Zc= $158\angle 0$ Ω, Ic= $1.03\angle -30$ A

(a) What is the voltage between new star point and original star point

(b) Which phase got over voltage?

A	A , $20\angle 90$ V	B	C , $40\angle 16.59$ V
C	B , $40\angle 0$ V	D	No line, 0V
	Answer		

Ref431

For one line to ground fault

A	Ia=Ib=2 I1	B	Ia=Ib=√3 I1
C	Ia=Ib= 3I1	D	Ia=Ib=I1
	Answer		

Ref432

Z1 = 65%   Z2= 69%   Zo = 40 % Base MVA = 100 MVA   E = 132KV 2 Line to ground fault. Calculate fault current.

A	918 (Angle -60Degree)Amp	B	918 (Angle 0 Degree)Amp
C	1830 (Angle 0 Degree)Amp	D	456 (Angle -60Degree)Amp
	Answer		

Ref433

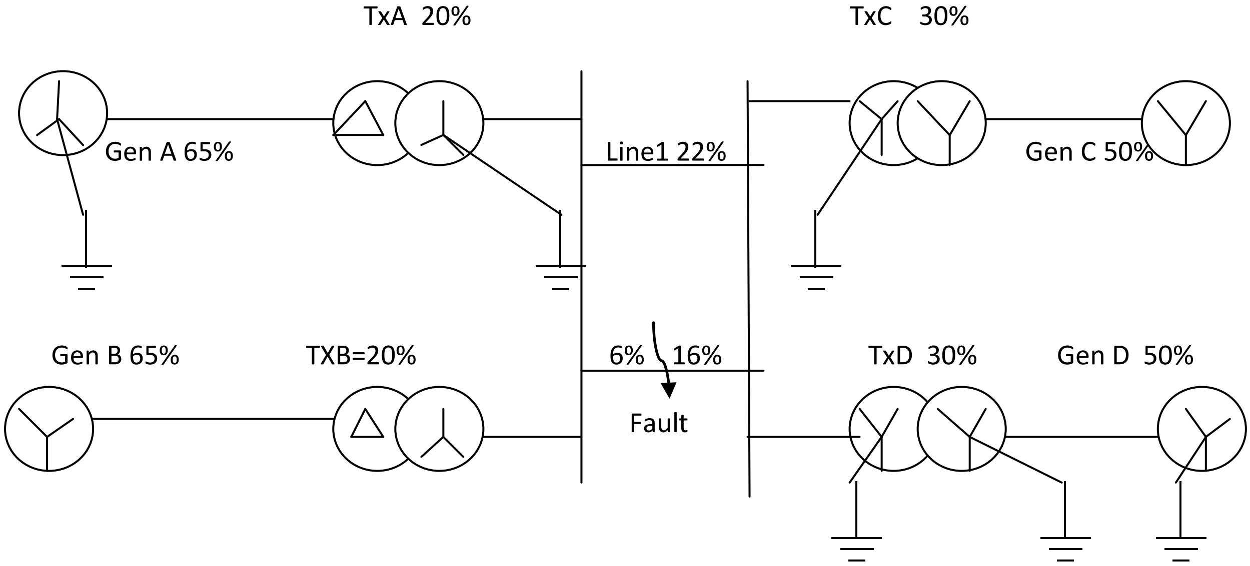
Ia= 100 $\angle$ 0 Amp   Ib= 100 $\angle$ 180 Amp   Ia= 0 Amp

Find Ia1, Ib1 and Ic1

A	Ia1 = 57.7$\angle$0 A,Ib1=57.7$\angle$0 A, Ic1=57.7$\angle$0 A	B	Ia1 = 57.7$\angle$-30 A, Ib1=57.7$\angle$-150 A, Ic1=57.7$\angle$90 A
C	Ia1 = 57.7$\angle$0 A, Ib1=57.7 $\angle$-120 A, Ic1=57.7$\angle$120 A	D	Ia1 = 57.7$\angle$120A, Ib1=57.7 $\angle$120 A, Ic1=57.7$\angle$120 A
	Answer		

Ref434

Calculate the positive, negative and zero sequence equivalent diagram for the given power system.



A	25.5%. 25.5%, 15.1%	B	25.5%. 25.5%, 25.5%
C	50%,50%,50%	D	10%,10%,10%
	Answer		