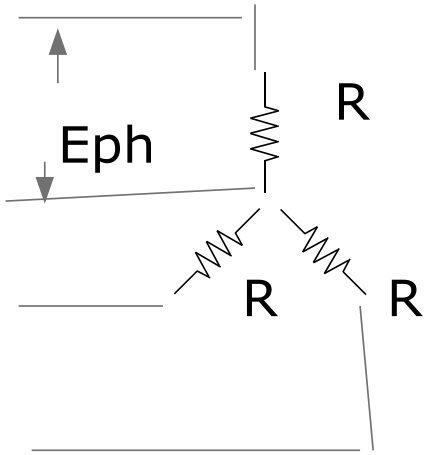
G049 Online Test

Ref425

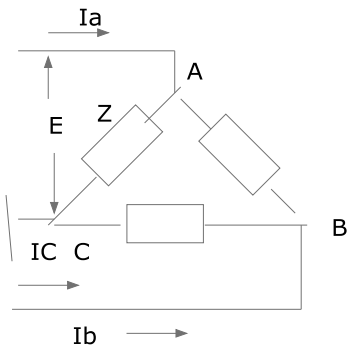


R= 100 Ω each, Eph= 173.2V

The neutral current flow in the given circuit is

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

Ref426



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

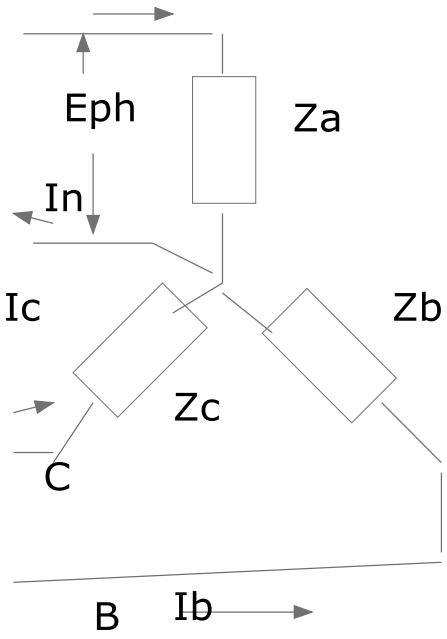
A	Ia= 13.9∠ 30 A, Ib=13.9∠ 150A Ic=13.9∠90 A	B	Ia= 13.9∠ -30 A, Ib=13.9∠ -150A Ic=13.9∠-90 A
C	Ia= 13.9∠ 0 A, Ib=13.9∠120A Ic=13.9∠-120 A	D	Ia= 13.9∠ 0 A, Ib=13.9∠ -120A Ic=13.9∠120 A
	Answer		

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		

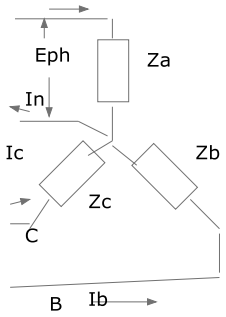
Ref 428



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 A	B	In- 0.878 $\angle$ 0.978 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	(ZaZb+ZbZc+ZcZa)/ Zc	B	(Za+Zb+Zc)/ ZaZbZc
C	(Za+Zb+Zc)/ Za	D	(Za+Zb+Zc)/ 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	No line, 0V
C	B , $40\angle 0$ V	D	C , $40\angle 16.59$ V
	Answer		

Ref431

For one line to ground fault

A	Ia=Ib=√3 I1	B	Ia=Ib=2 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	1830 (Angle 0 Degree)Amp	B	918 (Angle 0 Degree)Amp
C	918 (Angle -60Degree)Amp	D	456 (Angle -60Degree)Amp
	Answer		

Ref433

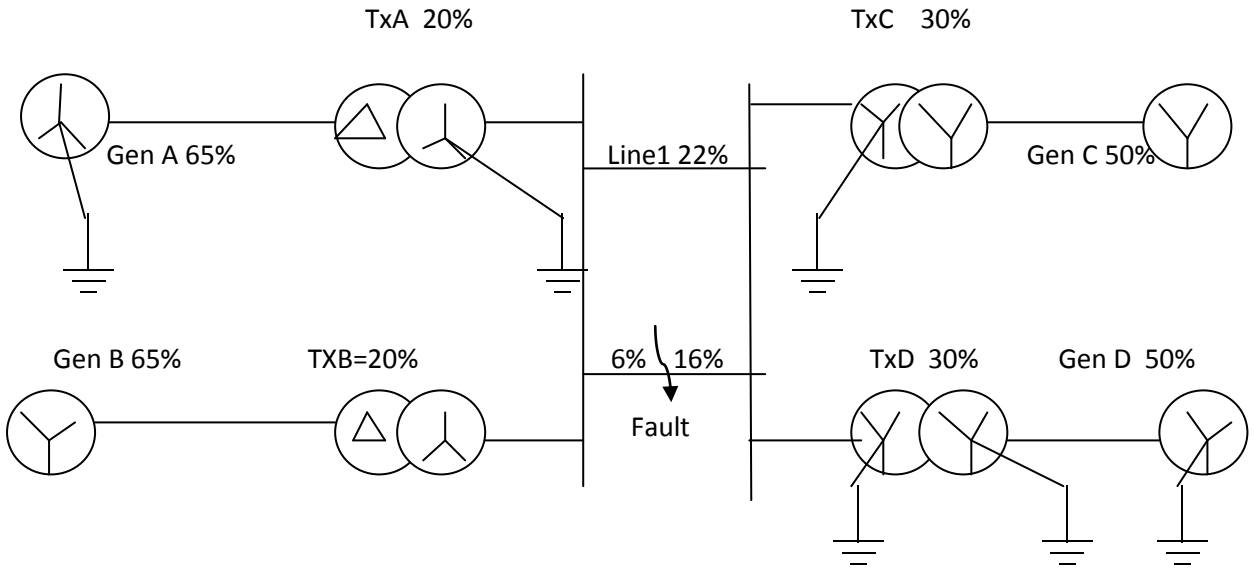
Ia= 100 $\angle$ 0 Amp Ib= 100 $\angle$ 180 Amp Ia= 0 Amp

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$0 A, Ib1=57.7 $\angle$-120 A, Ic1=57.7$\angle$120 A
C	Ia1 = 57.7$\angle$-30 A, Ib1=57.7$\angle$ -150 A, Ic1=57.7$\angle$90 A	D	Ia1 = 57.7$\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	10%,10%,10%	B	25.5%. 25.5%, 25.5%
C	50%,50%,50%	D	25.5%. 25.5%, 15.1%
	Answer		