

## E029+G012 Online Test 1

Ref40

3 voltages , phase to neutral are measured to be 220V, 215V and 210V on nominal 415V , 50Hz. The percentage voltage imbalance is

A	2.3%	B	6%
C	4.6%	D	10%
Answer			

Ref41

The synchronous speed is

A	$N_s = 120f / p$	B	$N_s = P / 120f$
C	$N_s = Pf / 120$	D	$N_s = 120f$
Answer			

Ref42

Torque is

A	Torque $\propto$ Voltage	B	Torque $\propto$ 1/ voltage
C	Torque $\propto$ Voltage <sup>2</sup>	D	Torque $\propto$ Voltage x Current
Answer			

Ref43

Permissible starting current for two motors (a) 15KW , 415V & (b) 15KW , 415V are

A	102.5A & 82.3A	B	200A & 60A
C	300A & 100A	D	50A & 40A
Answer			

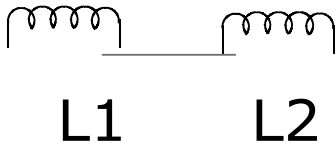
Ref48

22 Kw , 4 poles , 415 V, full load current 38 amp, three phase induction motor

Locked rotor current = 600% of I fl. Locked rotor torque = 155% Tfl Starting current and starting torque for (i) Star / delta (ii) Primary resistance starting (iii) Auto transformer starting with 55% tapping are

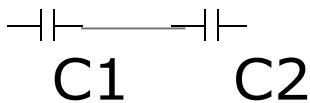
A	200%, 51.7%, 600%, 46.9%	B	100%, 20%, 300%, 23%
C	50%,50%,600%,46.9%	D	100%,51.7%,300%,46.9%
Answer			

Ref174



A	$L_{total} = L_1 + L_2$	B	$L_{total} = L_1 - L_2$
C	$L_{total} = 1 / (L_1 + L_2)$	D	$L_{total} = L_1 L_2 / (L_1 + L_2)$
Answer			

Ref176



A	$C_{total} = C_1 + C_2$	B	$C_{total} = 1 / (C_1 + C_2)$
C	$C_{total} = C_1 C_2 / (C_1 + C_2)$	D	$L_{total} = C_1 - C_2$
Answer			

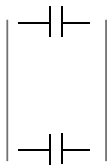
Ref177

Xl is equal to

A	$Xl = L$	B	$Xl = 2 \pi fL$
C	$Xl = 1/ 2 \pi fL$	D	$Xl = 1/ 2fL$
Answer			

Ref179

C1



C2

A	$C \text{ total} = C_1 + C_2$	B	$C \text{ total} = 1/ (C_1 + C_2)$
C	$C \text{ total} = C_1 C_2 / (C_1 + C_2)$	D	$L \text{ total} = C_1 - C_2$
Answer			

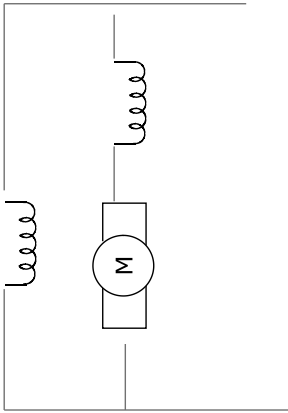
Ref180

A welder needs to have 180 amp output and is to be connected to a 240V , 20A supply . What turn ratio is needed ? What voltage would be supplied to the electrode at output?

A	9, 26.6V	B	18, 26.6V
C	9, 13.3V	D	18, 13.3V
Answer			

Ref182

The following connection is



A	Series DC Machine	B	Shunt DC Machine
C	Long Shunt Compound DC Machine	D	Short Shunt Compound DC Machine
Answer			

Ref183

Left hand rule is applied for

A	DC Generator	B	DC Motor
C			
Answer			

Ref184

Which one is a reduced voltage starter

A	Direct Online Starter	B	Star delta starter
C	Forward reverse starter	D	Dynamic braking
Answer			