

Quiz-1

Sub: Basic Electrical Engineering

Sub code: 18ELE13/23

SL.NO	SET -I	Answer
1	The direction of rotation of the three phase machines depends on _____ a) line voltages b) phase sequence c) phase currents d) phase voltages.	b) phase sequence
2	In a three phase balanced supply system, the sum of instantaneous values of the 3 voltages at any instant is a) maximum, b) zero, c) minimum, d) none of these.	b) zero
3	Three phase apparent power is equal to a) $\sqrt{3}V_{LL}I_L$, b) $\sqrt{3}V_{LL}I_L\cos\Phi$, c) $\sqrt{3}V_{LL}I_L\sin\Phi$, d) $V_{LL}I_L$	a) $\sqrt{3}V_{LL}I_L$
4.	_____ method gives full mechanical protection to the wires. a) cleat, b) casing-capping, c) conduit, d) surface	c) conduit
5.	A good earthing should provide _____ resistance in earthing path a) low, b) high, c) medium, d) none of these.	a) low
6.	The core losses of transformers are dissipated in the form of _____ a) heat b) magnetic hum c) light d) electric energy.	a) heat
7.	An ideal transformer does not change a) voltage, b) current, c) power, d) none of these.	c) power
8	If an ammeter in the secondary of 100/10V, transformer reads 10A the current in the primary would be a) 1A, b) 2A, c) 10A, d) 100A.	a) 1A
9	_____ construction has double magnetic circuit a) core type, b) shell type, c) berry type, d) three phase.	b) shell type
10	For a star connection network, consuming power of 1.8kW and power factor 0.5, the inductance and resistance of each coil at a supply voltage of 230 Volts, 60 Hz is _____?	c) 0.3H, 7.4 Ohms

	a) 0.1H, 8 Ohms b)0.5H, 10 Ohms c)0.3H, 7.4 Ohms b) 1H, 7 Ohms	
	SET-II	
1	Methods of connecting three phase windings are a) star, b) delta, c) center tapping, d) star & delta	d) star & delta
2	When two wattmeter readings are equal, then power factor is a) unity b) 0.5 c) zero d) 0.866	a) unity
3	The total reactive volt-amperes by two wattmeter readings is given by a) $W_1 - W_2$, b) $\sqrt{3} * W_1 - W_2$ c) $W_1 + W_2$, d) $\sqrt{3} * W_1 + W_2$	d) $\sqrt{3} * W_1 + W_2$
4	_____ switch is important in 3 way control of lamp. a) single pole, b) intermediate, c) multiple, d) none of these	b) intermediate
5	For the house hold fuse the fusing factor is generally a) 10, b) 5, c) 8, d) 2	d) 2
6	Which type of transformer is used for very high voltage applications? a) core type, b) shell type, c) berry type, d) three phase	b) shell type
7	For a three phase, three wire system, the two Wattmeter read 4000 Watts and 2000 Watts respectively. The power factor when both meters give direct reading is ____ ? a) 1 b) 0.5 c) 0.866 d) 0.6	c) 0.866
8	For 400V/100V transformer the secondary turns are 16, then the primary turns are a) 4, b) 64, c) 16, d) 8	b) 64
9	The _____ component of no load current is required to produce flux in the core a) Wattful, b) power, c) core loss, d) magnetizing.	d) magnetizing
10	Transformer core is constructed for _____ a) Providing least effective magnetic linkage between two windings b) Providing isolation between magnetic linkages of one coil from another	c) Providing most effective magnetic linkage between two windings

	c) Providing most effective magnetic linkage between two windings d) Cannot be determined	
1	Equation of three phase power is a) $V \cdot I$, b) $V \cdot I \sin \Phi$, c) $V \cdot I \cos \Phi$, d) $\sqrt{3} \cdot V \cdot I \cos \Phi$	d) $\sqrt{3} \cdot V \cdot I \cos \Phi$
2	The wattmeter senses the angle between a) the phase voltage and phase current, b) the line voltage and line current, c) the current in current coil and voltage across pressure coil, d) none of the above.	a) the phase voltage and phase current
3	The algebraic sum of instantaneous phase currents in a three phase balanced system is a) 0 b) infinity c) line current d) phase current.	a) 0
4	This method is most costly and requires skilled labour. a) cleat, b) casing-capping, c) conduit, d) surface	c) conduit
5	The transformer rating is expressed on VA because a) on both sides it is constant, b) losses are independent of load power factor, c) frequency is constant on the load side, d) the flux in the core remains constant.	b) losses are independent of load power factor
6	The turns ratio is _____ to current ratio. a) Directly proportional, b) equal, c) inversely proportional, d) none of these.	c) inversely proportional
7	Transformer core is generally made of _____ a) Single block of core material b) By stacking large number of sheets together c) Can be made with any of the above method d) Cannot be determined	b) By stacking large number of sheets together
8	Which type of flux does transformer action need? a) Constant magnetic flux b) Increasing magnetic flux c) Alternating magnetic flux d) Alternating electric flux	c) Alternating magnetic flux
9	There is only one magnetic flux path in the circuit. The transformer is definitely _____ a) Core type b) Shell type	a) Core type

	c) Can be any of the above d) Depends on other parameters	
10	<p>For a balanced three phase, three wire system with input power of 10kW, at 0.9 power factor, the readings on both wattmeter are ———— respectively</p> <p>a) 7kW, 3kW b)6350W, 3650W c)5000W, 5000W d)7600W, 1200W</p>	b)6350W, 3650W