Q=QUESTION	question_description	question_explanation	question_type	question_difficulty
A=ANSWER	answer_description	answer_explanation	answer_isright	answer_position
Q	Main application of FACTS is to compensate			1
A	Reactance		1	1
A	Resistance		0	2
A	conductance		0	3
A	admittance.		0	4
Q	During series resonance, the impedance of the circuit is		S	1
A	Minimum		1	1
A	Maximum		0	2
A	Zero		0	3
A	Moderate		0	4
Q	Distance after which cost of HVDCT << cost of HVACT is termed as _____ distance.		S	1
A	Broad		0	1
A	Critical point		0	2
A	Break-even		1	3
A	Change over		0	4
Q	In the case of the welding plant, the permitted voltage variation is _____related to the sensitivity of the human eye to light fluctuations as a function of frequency.		M	1
A	directly		0	1
A	inversely		1	2
A	not		0	3
A	linearly		0	4
Q	Power factor can be improved by connecting which among these?		M	1

A	Static capacitors.		0	1
A	Resistors.		0	2
A	Synchronous condensers.		0	3
A	Static capacitors and Synchronous condensers.		1	4
Q	The most suitable location for the power factor improvement device is		M	
A	Near the electrical appliance		0	
A	At the sending end		0	
A	At the receiving end in case of transmission lines.		0	
A	Near the electrical appliance and at the receivind end of the transmission line		1	
Q	The intrinsic sensitivity of the supply voltage to variations in the reactive power Q is given as		M	
A	$\frac{-E'}{S_{sc}}$		1	
A	$\frac{V'}{S_{sc}}$		0	
A	$\frac{E'}{S_{sc}}$		0	
A	$\frac{Q_i}{S_{sc}}$		0	
Q	Typical variations in the reactive power requirements of a steel rolling mill is found to be		M	
A	small		0	
A	large and sudden		1	
A	gradual		0	
A	smooth		0	
Q	In TSC, which of the following is not applicable to capacitors switching?		M	
A	switching at instant where capacitor voltage and AC voltage are in sync.		0	
A	transient-free switching		0	
A	firing delay angle control		1	

A	switching when thyristor valve voltage is minimum.		0	
Q	The aim of switching converter type static VAR generators is to produce a _____ that can be adjusted to meet the compensation requirements.		M	
A	variable capacitor shunt impedance		0	
A	fixed capacitor shunt impedance		0	
A	variable reactive shunt impedance		1	
A	fixed reactive shunt impedance		0	
Q	With respect to reactive power generation, compensator operation is similar to _____ whose reactive power output is varied by excitation control.		M	
A	a DC generator		0	
A	a transformer		0	
A	an ideal high pass filter		0	
A	an ideal synchronous machine		1	
Q	In TCR, along with currents, harmonics are also generated, resulting in _____ waveforms, specifically.		M	
A	sinusoidal		0	
A	non-sinusoidal		1	
A	exponential		0	
A	saw-tooth		0	
Q	Which of the following is not a unique property of STATCOM?		M	
A	has symmetric lead-lag capability		0	
A	cannot produce resonance with the system		0	

A	more useful under large voltage disturbances		0	
A	very slow response		1	
Q	Assume a 275 kV transmission line having the following line constants:A = 0.5 ∠ 5° ; B = 200 ∠ 75° If a load is connected at receiving end at unity power factor but maintaining the same voltage profile. Then _____ compensation will be needed at _____		M	1
A	capacitive, receiving end		1	1
A	inductive, sending end		0	2
A	capacitive, sending end		0	3
A	inductive, receiving end		0	4
Q	UPFC falls under which generation of FACTS controller?		M	1
A	first		0	1
A	second		0	2
A	third		1	3
A	fourth		0	4
Q	UPFC is a form of -		M	1
A	Series FACTS controllers		0	1
A	Shunt FACTS controllers		0	2
A	Combined series series FACTS controllers		0	3
A	Combined series shunt FACTS controllers		1	4
Q	what is bang bang control?		M	1
A	a discrete control form in which the thyristor is either fully switched on (α=90) or fully switched off (α=180)		1	1
A	a discrete control form in which the thyristor is fully switched on (α=90)		0	2

A	a discrete control form in which the thyristor is fully switched off (α=180)		0	3
A	a discrete control form in which the thyristor is either fully switched on (α=180) or fully switched off (α=90)		0	4
Q	Application of UPFC would include -		M	1
A	power flow control only		0	1
A	power oscillation damping only		0	2
A	fault current limiting only		0	3
A	can do all three; power flow control, power oscillation damping and fault current limiting		1	4
Q	Which of the following is not a salient feature of UPFC?		M	1
A	more reliable		0	1
A	provides dynamic security		0	2
A	acts as harmonic isolator		0	3
A	is capable of increasing conductor cross section for improved current flow		1	4
Q	The voltage ratings of thyristors present in PAR gives which type of volatages during surges		M	
A	transient		1	
A	steady state		0	
A	both transient and steady state		0	
A	neither transient nor steady state		0	
Q	The syncronous voltage source used as voltage or angle regulator will exchage which type of power		M	
A	reactive Power		0	
A	real power		0	
A	both real and reactive		1	
A	interactive		0	

Q	In PARwhich type of magnitude control can be applied at the time of thyristor valve conduction		M	
A	current		0	
A	emf		0	
A	voltage		1	
A	power		0	
Q	The gating of thyrister controlled valve can be done by		M	
A	forward control		0	
A	delay control		1	
A	fast forward control		0	
A	cascade control		0	
Q	PAR does not increase		M	
A	power		1	
A	voltage		0	
A	current		0	
A	emf		0	
Q	For large oscillaton which type of conrol most effective			
A	overdamped		0	
A	underdamped		0	
A	damped		0	
A	bang bang		1	
Q	The equal area criteria is usedto invest capability of which compensator		M	
A	shunt		0	
A	series		0	
A	shunt and series		1	
A	tssc		0	
Q	From which source actully PARs oprates		M	
A	fixed current		0	
A	fixed voltage		1	
A	fixed power		0	
A	fixed emf		0	

Q	what is relationship between real power and reactive power in PAR		M	
A	they are same		1	
A	they vary		0	
A	they are disfferent		0	
A	cannot say		0	
Q	FACTS devices generally deals with		M	
A	S		0	
A	Q		1	
A	P		0	
A	Load Angle		0	
Q	Application of the facts device is		M	
A	Generation		0	
A	AC transmission		1	
A	DC transmission		0	
A	Load		0	
Q	Transmission Interconnections is applicable in		M	
A	to minimize the total power generation capacity and fuel cost		1	
A	to minimize reactive power		0	
A	to improve power factor		0	
A	to maintain flat voltage profle		0	
Q	If generation is less than load……..		M	
A	the voltage and frequency drop,		1	
A	the voltage drop		0	
A	the frequency drop		0	
A	the power factor improves.		0	
Q	Control of the line impedance X can provide a powerful means of……..		M	
A	current control		1	
A	voltage control		0	
A	frequency control		0	

A	power factol control		0	
Q	all series Controllers inject …….. in series with the line.		M	
A	current		0	
A	voltage		1	
A	voltage and current		0	
A	power		0	
Q	all shunt Controllers inject…….. into the system at the point of connection.		M	
A	current		1	
A	voltage		0	
A	voltage and current		0	
A	power		0	
Q	A STATCOM is a		M	
A	Series Controller		0	
A	Shunt Controller		1	
A	combined series- series controller		0	
A	Combined Series-Shunt Controller		0	
Q	What does GCSC means?		M	
A	GTO Controlled Switch Capacitor		0	
A	GTO Controlled Series Capacitor		1	
A	GTO Controlled Switch Compensator		0	
A	GTO Controlled Series Compensator		0	
Q	GCSC consists of		M	
A	Variable capacitor in parallel with a GTO thyristor		0	
A	fixed capacitor in Series with a GTO thyristor		0	
A	fixed capacitor in parallel with a GTO thyristor		1	
A	Variable capacitor in Series with a GTO thyristor		0	
Q	Limitations of series compensation		M	
A	Reduce the stability		0	
A	increase the voltage drop		0	
A	Reduce the power factor		1	
A	Increase in fault current		0	

Q	Operation of SSSC resemble to		M	
A	shunt capacitor		0	
A	series inductor		0	
A	shunt capacitor and series inductor		1	
A	shunt inductor and series capacitor		0	
Q	Main Objective of GCSC is		M	
A	to control the ac current across the capacitor for a given line current		0	
A	to control the ac voltage across the capacitor for a given line current		1	
A	to control the ac voltage across the capacitor for a given line voltage		0	
A	to control the ac current across the capacitor for a given line voltage		0	
Q	TCSC can provide continuously		M	
A	Fixed capacitance		0	
A	variable capacitance		1	
A	Fixed inductance		0	
A	Variable inductance		0	
Q	TCSC is capable of providing		M	
A	Constant supply		0	
A	Constant alternating supply		1	
A	constant current		0	
A	constant voltage		0	
Q	Power angle regulator is applied when power between is transmitted in		M	
A	Parallel lines of same electrical length		0	
A	Parallel lines of different electrical length		1	
A	Any parallel lines		0	
A	Parallel lines of same polarity		0	
Q	In TSSC, when the current crosses zero, ...		M	
A	the thyristor valve is turned on		0	

A	the thyristor valve is turned off		1	
A	the capacitor is turned on		0	
A	the capacitor valve is turned off		0	
Q	The degree of serirs compensation in TSSC is controlled step wise by increasing or decreasing the no of ...		M	
A	Series capacitor		1	
A	Parallel capacitor		0	
A	Series of inductor		0	
A	Series of inductor		0	
Q	If the opening of GCSC is delayed by angle gamma wrt the crest of line current i, then Vc =?		M	
A	(I/wC)×(sinwt - sin gamma)		1	
A	(wC/I)×(sinwt - sin gamma)		0	
A	(I/wC)×(sin gamma - sinwt)		0	
A	(wc/I)×(sin gamma - sinwt)		0	
Q	When the GTO valve is closed, voltage accross the capacitor is		M	
A	maximum		0	
A	minimum		0	
A	zero		1	
A	infinity		0	
Q	In TSSC, the 1st half of the cycle		M	
A	charges the capacitor from zero to maximum		0	
A	discharges the capacitor from maximum to zero		1	
A	charges the capacitor to minimum		0	
A	discharges the capacitor to minimum		0	
Q	A capacitor is inserted by which technique in TCSC		M	
A	Switching ON the Thyristor		0	

A	By manually adding		0	
A	Switching OFF the Thyristor		1	
A	By removing the Thyristor		0	
Q	In TSSC when does the thyristor valve commutates "naturally," that is, it turns off?		M	
A	When Current crosses 90°		0	
A	When Current crosses 180°		0	
A	When Current crosses 0°		1	
A	When Current crosses 45°		0	
Q	In normal operation TCSC operates at which mode		M	
A	Bypassed- thyristor mode		0	
A	Blocked - thyristor mode		0	
A	Capacitive Vernier mode		1	
A	Inductive Vernier mode.		0	
Q	What does TCSC means		M	
A	Transistor controlled series capacitor		0	
A	Thyristor controlled series capacitor		1	
A	Transistor controlled switched capacitor		0	
A	Thyristor controlled switched capacitor		0	
Q	A static VAR compensator is a		M	
A	Voltage controlled shunt compensation device		1	
A	Current controlled shunt compensation device		0	
A	Voltage controlled series compensation device		0	
A	Current controlled series compensation device		0	
Q	What is the result of frequency instability?		M	
A	Voltage collapse		0	
A	Frequency swings		1	
A	Grid failure		0	

A	nothing happens		0	
Q	The transient stability limit of a power system can be appreciably increased by introducing		M	
A	Series inductance		0	
A	Shunt inductance		0	
A	Series capacitance		1	
A	Shunt capacitance		0	
Q	Which equipment is used for EHV lines to improve power transferability?		M	
A	Shunt capacitor		0	
A	Shunt reactor		0	
A	Series capacitor		1	
A	Series reactor		0	
Q	FACTS will increase		M	
A	System transient stability		1	
A	Reduce fault currents		0	
A	Improves unstability		0	
A	Voltage collapse		0	
Q	FACTS devices used in		M	
A	Generation		0	
A	AC transmission		1	
A	DC transmission		0	
A	Distribution		0	
Q	Which of the following equipment is not used for voltage control		M	
A	Tap changing transformer		0	
A	Induction generators		1	
A	Series compensators		0	
A	Synchronous phase modifiers		0	
Q	How is the voltage and frequency controlled in automatic genera		M	
A	By controlling the excitation		0	
A	By controlling the turbine action		0	
A	Turbine speed control for voltage and excitation control for frequ		1	

A	Excitation control for voltage and turbine speed control for volta		0	
Q	What is voltage stability?		M	
A	To maintain steady voltages at all the buses after the occurrence		1	
A	To maintain steady voltages at all the buses before the occurrenc		0	
A	To maintain the system frequency after the severe disturbances		0	
A	During distrubunance		0	
Q	With 100 % inductive shunt compensation, the voltage profile is		M	
A	100% loading line		0	
A	50% loading line		0	
A	Zero loading of line		1	
A	45% loading line		0	
Q	A series compensated transmission line has better		M	
A	Reactive capacity		0	
A	Short circuit capacity		0	
A	Steady circuit capacity		0	
A	Transient stability		1	
Q	If a line is 100 % series compensated it may result in series reson		M	
A	50 or 60 Hz		1	
A	100 Hz		0	
A	25 Hz		0	
A	150 Hz		0	
Q	For certain geometry and operating voltage of the uncompensate		M	
A	Increases		0	
A	Remains unchanged		1	
A	Decreases		0	
A	Uncertain		0	
Q	TSC means		M	
A	Thyristor controlled reactor		0	
A	Thyristor switched capacitor		1	
A	Thyristor switched reactance		0	
A	Fixed capacitor-thyristor controlled reactor		0	
Q	FC-TCR means		M	
A	Thyristor controlled reactor		0	

A	Thyristor switched capacitor		0	
A	Thyristor switched reactance		0	
A	Fixed capacitor-thyristor controlled reactor		1	
Q	FACTS devices are generally used for to compensate……		M	
A	Reactance		1	
A	Resistance		0	
A	Conductance		0	
A	Inductance		0	
Q	AGC controls		M	
A	Frequency		1	
A	torque		0	
A	Steam /water input		0	
A	Voltage		0	
Q	STATCOM + SSSC will make		M	
A	UPQC		0	
A	TCSC		0	
A	UPFC		1	
A	SVR		0	
Q	Saturated reactor will generate harmonics of the order of		M	
A	16k ± 1		0	
A	9k ± 1		1	
A	18k ± 1		0	
A	20k ± 1		0	
Q	Losses in FC-TCR will vary in the range of		M	
A	0.5 - 0.9%		1	
A	0.8 - 0.15%		0	
A	0.5 – 0.12%		0	
A	0.5 - 0.7%		0	
Q	IGBT is used in HVDC transmission because of		M	
A	Fast switching capacity		0	
A	Can withstand high voltage		1	
A	Can tolerate mechanical shock		0	
A	Can withstand high current shock		0	

Q	Main problem of HVDC line at receiving end is of		M	
A	P balance		1	
A	Q balance		0	
A	Voltage balance		0	
A	S balance		0	
Q	Full form of EAG in HVDC converter is		M	
A	Extinction angle control		1	
A	Extinction angular control		0	
A	Excitation angle control		0	
A	Excitation angular control		0	
Q	FACTS devices are generally used for to compensate..... Of the transmission line		M	
A	Reactance		1	
A	Resistance		0	
A	conductance		0	
A	admittance.		0	
Q	FACTS devices used in		M	
A	Generation		0	
A	AC transmission		1	
A	DC transmission		0	
A	Load		0	
Q	Why We Need Transmission Interconnections		M	
A	to minimize the total power generation capacity and fuel cost		1	
A	to minimize reactive power		0	
A	to improve power factor		0	
A	to maintain flat voltage profle		0	
Q	Control of the line impedance X can provide a powerful means of……..		M	
A	current control		1	
A	voltage control		0	

A	frequency control		0	
A	power factol control		0	
Q	all series Controllers inject …….. in series with the line.		M	
A	current		0	
A	voltage		1	
A	voltage and current		0	
A	power		0	
Q	A STATCOM is a		M	
A	Series Controller		0	
A	Shunt Controller		1	
A	combined series- series controller		0	
A	Combined Series-Shunt Controller		0	
Q	Which one is Series Connected Controller		M	
A	TSSR		1	
A	TSC		0	
A	TSR		0	
A	UPFC		0	
Q	Which one is Series Connected Controller		M	
A	TCBR		0	
A	TCSR		1	
A	SVG		0	
A	TSC		0	
Q	Which one is Shunt Connected Controller		M	
A	TCSR		0	
A	TSSC		0	
A	TSSR		0	
A	TSC		1	
Q	which one is Combined shunt and series connected controller		M	

A	UPFC		1	
A	TSSC		0	
A	TCSR		0	
A	TSSR		0	
Q	series Controller injects:		M	
A	Voltage in phase with the line current.		0	
A	current in phase quadrature with line voltage		0	
A	Voltage in phase quadrature with line current.		1	
A	current in phase with line voltage		0	
Q	A shunt controller injects:		M	
A	current in phase quadrature with line voltage		1	
A	voltage in phase with line voltage		0	
A	voltage in phase quadrature with line voltage		0	
A	current in phase with line voltage		0	
Q	How is STATCOM connected in a system		M	
A	Series to the system which requires compensation		0	
A	Series or parallel to the system which requires compensation		0	
A	Shunt to the system which requires compensation		1	
A	As per the sysytem kVAr requirement		0	
Q	What does SSG stands for		M	
A	Series Source Generatror		0	
A	Shunt Source Generator		0	
A	Series Static Generator		0	
A	Static Synchronous Generator.		1	
Q	What does SSSC stands for		M	

A	Series Static Superconducting Compensator		0	
A	Shunt Static Superconducting Compensator		0	
A	Static Synchronous Series Compensator		1	
A	Static Synchronous Shunt Compensator		0	
Q	What does SMES stands in compensation techniques:		M	
A	Series Magnetic Energy Storage		0	
A	Shunt Magnetic Energy Storage		0	
A	Superconductor Magnetic Energy Storage		1	
A	Super Magnetic Energy Storage		0	
Q	How is SSSC connected in system		M	
A	Series to the system which requires compensation		0	
A	Shunt to the system which requires compensation		1	
A	Series or parallel to the system which requires compensation		0	
A	According to the compensation magnitude.		0	
Q	FACTS controller used For ?		M	
A	Voltage compensations		0	
A	KVARcompensation		1	
A	KW compensation		0	
A	PF control		0	
Q	SVC term defined as		M	
A	Synchronous Voltage Converter		0	
A	Shunt Voltage Compensator		0	
A	Static VAR Compensator		1	

A	Synchronous Voltage Converter		0	
Q	SVC and STATCOM are _____ device.		M	
A	Voltage compensators		0	
A	Static series synchronous compensator		0	
A	Shunt Compensators		0	
A	Seies Compensators		1	
Q	UPFC stands for:		M	
A	Unified Power Factor Controller		0	
A	Unified Power Flow Compensator		0	
A	Unified Power Flow Controller		1	
A	Unique Power Controller		0	
Q	Power flow control, Voltage control and oscillation damping is the main feature of:		M	
A	TSC		0	
A	SSSC		0	
A	UPQC		0	
A	UPFC		1	
Q	UPFC Consists of		M	
A	one voltage sourced converter		0	
A	Two voltage sourced converter		1	
A	Three voltage sourced converter		0	
A	Four voltage sourced converter		0	
Q	The function of converter 1 of UPFC is to supply or absorb the.....demanded by converter 2 at the dc link.		M	
A	Real Power		1	
A	reactive power		0	
A	Apperant power		0	
A	inductance		0	

Q	UPFC control the magnitude and angular position of the		M	
A	Injected current		0	
A	Injected voltage		1	
A	Injected Reactive power		0	
A	injected Active Power		0	
A	Real Power flow		0	
A	Reactive Power flow		0	
A	Real and Reactive Power flow		1	
A	Real or Reactive Power flow		0	
A	Active power control		0	
A	Reactive power Control		0	
A	Active and reactive power control		1	
A	Angle Control		0	
A	Proportional to transmission voltage		0	
A	Proportional to the square of transmission voltage		1	
A	Inversely proportional to the transmission voltage		0	
A	Inversely proportional to the square of transmission voltage		0	
A	Excitation control		0	
A	Using induction regulator		0	
A	Reactive VAR injection methods		1	
A	any of the above		0	
A	At the sending end		0	
A	At the receiving end		0	
A	At the intermediate point		1	

A	Anywhere in the line		0	
A	Sudden load changes		0	
A	Switching operations		0	
A	Inadvertent tripping of the lines and generators		0	
A	All of them		1	
A	A. Use of series capacitors of neutralise the effect of series reactance		0	
A	B. Switching in shunt capacitors at the receiving end during heavy loads		0	
A	C. Use of tap changing transformers		0	
A	D. Any of the methods stated		1	
A	Continuous signal		0	
A	Large isolating pulse transformer		0	
A	A train of pulses		1	
A	By sngle pulse		0	
A	2^{nd}		1	
A	3^{rd}		0	
A	5^{th}		0	
A	7^{th}		0	
A	0°		0	
A	45°		0	
A	60°		0	
A	90°		1	
A	Remains same		0	
A	Increases		1	

A	Decreases		0	
A	Becomes zero		0	
A	steady state stability		0	
A	Transient stability		1	
A	thermal stability		0	
A	dielectric stability		0	
A	regulate current against load variation		0	
A	regulate load variation		0	
A	regulate voltage against load variation		1	
A	regulate real power flow		0	
A	a perpendicular voltage vector in series with a phase.		1	
A	a in-phase voltage vector in series with a phase		0	
A	a perpendicular voltage vector in shunt with a phase		0	
A	a in-phase voltage vector in shunt with a phase		0	
A	STATCOM		0	
A	SSSC		0	
A	UPFC		0	
A	TCR		1	
A	Reduce power factor		0	
A	Improve voltage regulation		1	
A	Unbalance the load		0	
A	Manage the flow of active power		0	
A	Generating reactive power as close as possible to the load		1	
A	Generating active power as close as possible to the load		0	
A	Generating reactive power as far as possible to the load		0	
A	Generating active power as far as possible to the load		0	

A	Reduced neutral current		0	
A	Reduced losses		0	
A	Reduced ripples in rectifiers		0	
A	Saturation of transformers		1	
A	Correct power factor to zero		0	
A	Correct power factor to unity		1	
A	Increase voltage regulation		0	
A	Unbalances the load		0	
A	Point of Common Coupling		1	
A	Neutral point		0	
A	Generating station side		0	
A	Load side		0	
A	Zero		0	
A	Infinite		1	
A	Negative		0	
A	Very small		0	
A	Tap changing transformer		0	
A	Synchronous Motors		0	
A	Induction Motors		0	
A	Capacitor bank		1	
A	Reactance of line		0	
A	Reactance of generator		0	
A	Output Torque		0	
A	Losses		1	
A	P<Po		1	
A	P>Po		0	
A	P=Po		0	
A	Independent on P and Po		0	

A	Sending end voltage is more		1	
A	Receiving end voltage is more		0	
A	Reactance is high		0	
A	Corona losses are least		0	
A	Maximum voltage to minimum voltage		1	
A	Maximum current to minimum voltage		0	
A	Peak voltage to rms voltage		0	
A	Maximum reactance to minimum reactance		0	
A	Negative		1	
A	Zero		0	
A	Positive		0	
A	Unity		0	
A	Short circuit current of system is increased		1	
A	Load power factor in heavy loads		0	
A	Large conductor area is required for same transmission		0	
A	Small conductor area is required for same transmission		0	
A	Short transmission lines		1	
A	Medium transmission lines		0	
A	Long transmission lines		0	
A	Medium as well as long transmission lines		0	
A	At the sending end		0	
A	At the receiving end		0	
A	At the intermediate point		1	
A	Any where in the line		0	
A	Series capacitors		0	
A	Shunt reactors		0	
A	Exciters		1	

A	Voltage transformers		0	