Program: BE --Electrical-- Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ___EEC701__ and Course Name: ___Power System – III (PS-III)_

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	In power system, the maximum number of buses are
Option A:	P-V buses
Option B:	Voltage controlled bus
Option C:	Slack buses
Option D:	Load buses
Q2.	In load flow studies PV bus is treated as PQ bus when
Option A:	phase angle become high
Option B:	voltage at the bus become high
Option C:	reactive power goes beyond limit
Option D:	real power go beyond limit
Q3.	The bus admittance matrix obtained from singular transformation is
Option A:	Y BUS=$Y^T A$
Option B:	Y BUS=ZA^T
Option C:	Y BUS=$A^T YA$
Option D:	Y BUS=$A^T ZA$
Q4.	The unknown variable of slack bus are
Option A:	IVI, δ
Option B:	P,Q
Option C:	Q,IVI
Option D:	Q, δ
Q5.	In Gauss Seidel method the number of iterations may be reduced if the correction in voltage at each bus is multiplied by
Option A:	Gauss Constant
Option B:	Acceleration factor
Option C:	Lagrange Multiplier
Option D:	Blocking Factor
Q6.	Which among the following method is highly accurate
Option A:	G-S Method

Option B:	FDLF Method
Option C:	N-R Method
Option D:	Decoupled Method
Q7.	For economic measure the generators at a power plant operate at
Option A:	Equal incremental costs
Option B:	Equal load
Option C:	Equal power rating
Option D:	Unequal load
Q8.	A low utilization factor of plant indicates that
Option A:	A plant is used for standby purpose
Option B:	Plant is under maintenance
Option C:	Plant is used for base load only
Option D:	Plant is used for peak load as well as base load
Q9.	The incremental transmission loss of a plant is
Option A:	positive always
Option B:	Negative always
Option C:	can be positive or negative
Option D:	can never be positive
Q10.	While calculating loss coefficients of power system the requirements are
Option A:	Voltage magnitudes and power factor must be constant
Option B:	All load currents have same ratio with total current
Option C:	Voltage magnitudes must constant but power factor can be variable
Option D:	Voltage magnitudes and power factor must be constant and all load currents have same ratio with total current
Q11.	Flat rate tariff are charged on the basis of
Option A:	connected load
Option B:	Units consumed
Option C:	maximum demand
Option D:	minimum demand
Q12.	Laplace transform of impulse function
Option A:	0
Option B:	1
Option C:	infinity
Option D:	indefinite
Q13.	Kinetic energy(KE) and frequency(f) of synchronous machines are related as
Option A:	KE proportional to (f)
Option B:	KE proportional to (1/f)
Option C:	KE proportional to (f^2)
Option D:	KE proportional to (-f)

Q14.	Load shedding is done for
Option A:	reducing peak demand on the system
Option B:	repairing of machines
Option C:	power factor improvement
Option D:	efficient operation of equipment
Q15.	When the power system is not in a position to meet the load, it will resort to
Option A:	Power factor improvement at the generators.
Option B:	load shedding
Option C:	efficient plant operation
Option D:	penalizing high load consumers by increasing the charges
Q16.	The ability of power system to maintain synchronism when subjected to severe disturbances is __
Option A:	rotor angle stability
Option B:	Transient stability
Option C:	Frequency stability
Option D:	Voltage stability
Q17.	The unit of inertia constant (H) is
Option A:	MJ/ MVA
Option B:	kg m^2
Option C:	MJ sec/ elect rad
Option D:	MJ/ sec elect rad
Q18.	Equal area Criterion of stability is applicable to
Option A:	Two machine system and infinite bus bar
Option B:	Single machine system and infinite bus bar
Option C:	Multi-machine system only
Option D:	No machine system and infinite bus bar
Q19.	Transient stability studies of a power system are usually carried out over a time period of
Option A:	two or more seconds
Option B:	Several time swings
Option C:	Time interval of first swing
Option D:	Sustained oscillations
Q20.	Series capacitive compensation in EHV transmission line is used to
Option A:	Reduce the line loading
Option B:	Improve the stability of power system
Option C:	Reduce the voltage profile
Option D:	Improve the protection of line
Q21.	For certain geometry and operating voltage of the uncompensated transmission line, the ratio of power transfer capability to the surge impedance loading with increase in length

Option A:	Increases
Option B:	Remains unchanged
Option C:	Decreases
Option D:	Uncertain
Q22.	Series capacitive compensation in EHV transmission lines is used to
Option A:	Reduce the line loading
Option B:	Improve the stability of the system
Option C:	Reduce the voltage profile
Option D:	Improves the protection of the line
Q23.	Which of these is not represented as operating state of power system
Option A:	Optimal Dispatch
Option B:	Post Contingency
Option C:	Security Dispatch
Option D:	State Estimation
Q24.	Power system security means
Option A:	Security of power system when load unbalanced
Option B:	Practices designed to keep the system operating when the components fail
Option C:	Secure the all the generating station against the failure
Option D:	Secure the all the transmission line against the failure
Q25.	Power system monitoring is usually done by
Option A:	ETAP
Option B:	SCADA
Option C:	Matlab
Option D:	PSIM

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	C
Q3.	C
Q4	B
Q5	B
Q6	C
Q7	A
Q8.	A
Q9.	C
Q10.	D
Q11.	B
Q12.	B
Q13.	C
Q14.	A
Q15.	B
Q16.	B
Q17.	A

Q18.	B
Q19.	C
Q20.	B
Q21.	B
Q22.	B
Q23.	D
Q24.	B
Q25.	B