

Program: BE Electrical Engineering

Curriculum Scheme: Revised 2012

Examination: Final Year Semester VII

Course Code: EEC702 and Course Name: High Voltage DC Transmission

Time: 1hour

Max. Marks: 50

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

Q1.	DC transmission requires conversion at?
Option A:	One End
Option B:	Two End
Option C:	After every uniform distance interval
Option D:	Only at receiving End
Q2.	Converters used for Conversion in HVDC transmission are?
Option A:	Dynamic
Option B:	Rotating
Option C:	Static
Option D:	Moving Iron
Q3.	Bulk power transmission over long HCDCT lines are preferred, on account of
Option A:	Low cost of HVDCT terminals
Option B:	No harmonics problem
Option C:	minimum line power losses
Option D:	simple protection
Q4.	The output DC voltage $V_o(t)$ contains equal positive and negative regions when delay angle is
Option A:	30
Option B:	90
Option C:	120
Option D:	180
Q5.	Quadrivalve arrangement in converter has valves in a group
Option A:	1 valve
Option B:	2 valves
Option C:	4 valves
Option D:	6 valves
Q6.	In a six pulse converter , three valves are conducting all the time when angle α is
Option A:	30
Option B:	45
Option C:	60

Option D:	90
Q7.	It is more convenient to define the angle of advance when alpha is more than
Option A:	0
Option B:	30
Option C:	60
Option D:	90
Q8.	Single phase full wave rectifier there will be following number of pulses
Option A:	2
Option B:	4
Option C:	6
Option D:	8
Q9.	Relation between power flow on AC and DC sides has factor K_c , which is
Option A:	Voltage ratio factor
Option B:	Current ratio factor
Option C:	DC power ratio factor
Option D:	Commutation factor
Q10.	The output voltage of converter is negative for α equal to
Option A:	0
Option B:	45
Option C:	90
Option D:	135
Q11.	If AC voltage decreases slightly the inverter operates at
Option A:	Constant current control
Option B:	Minimum α control
Option C:	Minimum γ control
Option D:	Constant γ control
Q12.	_____ unit transmits current order (I_{ref}) to the pole
Option A:	System control
Option B:	Master control
Option C:	VGC
Option D:	Remote control
Q13.	Under normal operation inverter operates at
Option A:	Ignition angle control
Option B:	Constant extinction angle control
Option C:	Minimum extinction angle control
Option D:	Constant current control
Q14.	Full form of VDCOL_____
Option A:	Voltage dependant current order limiter

Option B:	Voltage dependant current over limiter
Option C:	Voltage divider constant over limiter
Option D:	Voltage dependent constant order limiter
Q15.	Commutation failure usually occurs in _____
Option A:	Rectifier
Option B:	Inverter
Option C:	Both Rectifier and Inverter
Option D:	Commutation failure never occurs
Q16.	Power transfer in DC line depends on
Option A:	Sending end voltage
Option B:	receiving end voltage
Option C:	Both Sending end and Receiving end voltage
Option D:	Source Current
Q17.	Under normal operations Rectifier will take care of _____ and the Inverter will take care of _____
Option A:	voltage, current
Option B:	power, voltage
Option C:	current, power
Option D:	Current, voltage.
Q18.	This filter maintains a low impedance for higher order harmonics
Option A:	Low Pass Filter
Option B:	Band Pass Filter
Option C:	High Pass Filter
Option D:	Band Reject Filter
Q19.	In a bipolar system with two 6-pulse bridges, the lower order harmonics are cancelled, due to 30 degrees phase shift because of the transformers arranged in
Option A:	Star-Star & Delta- Delta
Option B:	Delta- Star & Delta- Star
Option C:	Star-Star & Star- Star
Option D:	Star-Star & Delta- Star
Q20.	Ripple current is less for higher values of the
Option A:	Commutating Inductance
Option B:	DC Reactor
Option C:	Converter Transformer
Option D:	Rating of thyristor valve
Q21.	This cannot be employed on a DC transmission line for protection, due to the absence of Current Zero interruption
Option A:	Circuit Breaker

Option B:	Commutating Inductance
Option C:	DC Reactor
Option D:	Converter Transformer
Q22.	Short Circuits on a two terminal DC line are cleared by
Option A:	Tap Changer Control
Option B:	DC Reactor
Option C:	Grid Control of Valves
Option D:	Circuit Breaker
Q23.	What are the effects of trouble caused by harmonics
Option A:	Resonance
Option B:	Poor Damping
Option C:	Increase magnetic losses
Option D:	Resonance, Poor Damping and Increase magnetic losses
Q24.	The causes of generation of Characteristic harmonics is due to
Option A:	Equal transformer leakage reactance
Option B:	Unequal transformer leakage reactance
Option C:	Zero leakage reactance
Option D:	Very high leakage reactance
Q25.	Which is a high Pass filter in HVDC
Option A:	D Type Filter
Option B:	C Type Filter
Option C:	A Type Filter
Option D:	E Type Filter

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

Q17.	D
Q18.	C
Q19.	D
Q20.	B
Q21.	A
Q22.	C
Q23.	D
Q24.	A
Q25.	B