

Program: BE Electrical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: EEC601 and Course Name: Protection and switch gear engineering

Time: 1hour

Max. Marks: 50

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

Q1.	A _____ is an automatically operated electrical device designed to protect an electrical circuit from damage caused by short circuit.
Option A:	Relay
Option B:	Earthing Switch
Option C:	Contactator
Option D:	Circuit Breaker.
Q2.	_____ is an assembly of apparatus which is installed to control transmission & distribution of power.
Option A:	Full-Station
Option B:	Part-Station
Option C:	Half-Station
Option D:	Sub-station.
Q3.	Surge Arrester is connected between_____.
Option A:	Phase conductors
Option B:	Phase conductor and ground.
Option C:	Shield conductor & Phase conductor
Option D:	Shield conductors
Q4.	When a fault occurs in a high voltage transmission line, what happens first?
Option A:	Circuit breaker operates then the relay.
Option B:	Relay operates and then the circuit breaker
Option C:	Relay operates, then successively the isolator and the circuit breaker.
Option D:	Isolator operates, then successively the relay and the circuit breaker
Q5.	Arcing voltage will be the least in case of
Option A:	Carbon
Option B:	Copper
Option C:	Silver
Option D:	Tungsten

Q6.	The arcing contacts in CB are made of
Option A:	Copper tungsten alloy
Option B:	Porcelain
Option C:	Electrolytic copper
Option D:	Aluminum alloy
Q7.	The stability of arc in vacuum depends on _____
Option A:	The contact material only.
Option B:	The circuit parameters only
Option C:	The contact materials and its vapor pressure
Option D:	The circuit parameters, contact materials and its vapor pressure
Q8.	What is the making to breaking current ratio for an extra high voltage circuit breaker?
Option A:	More than 1
Option B:	Equal to 1
Option C:	Less than 1
Option D:	A negative value
Q9.	Admittance relay is _____ relay
Option A:	Impedance type
Option B:	Directional type
Option C:	Non-directional type
Option D:	Reactance type
Q10.	In a biased differential relay the bias is defined as a ratio of
Option A:	Number of turns of restraining and operating coil
Option B:	Operating coil current and restraining coil current
Option C:	Fault current and operating coil current
Option D:	Fault current and restraining coil current
Q11.	Directional over current relays have two exciting coils connected across
Option A:	CT secondaries of two different phases
Option B:	PT secondaries of two different phases
Option C:	CT and PT secondaries of same phases
Option D:	CT and PT secondaries of two different phases
Q12.	Both voltage and current signals are required for
Option A:	A plain over current relay
Option B:	A differential relay
Option C:	A directional relay
Option D:	A biased directional relay
Q13.	What is the arc voltage in a circuit breaker?
Option A:	In phase with the arc current.

Option B:	Lagging the arc current by 90°
Option C:	Leading the arc current by 90°
Option D:	Lagging the arcing current by 180°
Q14.	Negative phase sequence relays in an Induction Motor are the protection preferred for which abnormality?
Option A:	Stalling
Option B:	Unbalanced voltage
Option C:	Rotor fault
Option D:	Overloads
Q15.	The relay invariably used in Transformers with conservators is
Option A:	Buchholz Relay
Option B:	Thermal overload Relay
Option C:	Earth fault Relay
Option D:	Negative phase sequence Relay
Q16.	Unbalanced loading of generators is sensed and protected by
Option A:	Field failure protection
Option B:	overload Protection
Option C:	Negative Sequence Protection
Option D:	Differential Protection
Q17.	The most commonly used method for the protection of three phase feeder is
Option A:	Time graded protection
Option B:	Differential protection
Option C:	Reverse power protection
Option D:	Over load protection
Q18.	Which is not related with method of backup protection
Option A:	Relay back up
Option B:	C T back up
Option C:	Remote back up
Option D:	Breaker back up
Q19.	Bus bar protection involves
Option A:	disconnection of all feeders connected to the bus bar
Option B:	Only faulty feeder need to be isolated from the bus bar
Option C:	Involves disconnection of all feeders and power sources connected to the bus bar
Option D:	involves only isolation of power sources connected to the bus bar
Q20.	A line trap in a long transmission line is used to
Option A:	Improve the power factor
Option B:	Damp the over voltage oscillations
Option C:	Confine the carrier signals in the line

Option D:	Protect the line against direct lightning stroke
Q21.	The phase comparator in case of static relays and electro mechanical relays normally are
Option A:	cosine and sine comparator respectively
Option B:	Sine and cosine comparator respectively
Option C:	both are sine comparator.
Option D:	both are cosine comparator.
Q22.	The NAND gate is AND gate followed by
Option A:	NOT gate
Option B:	OR gate
Option C:	AND gate
Option D:	XOR gate
Q23.	A device used to display one or more digital signals so that they can be compared to expected timing diagrams for the signal is a
Option A:	DMM
Option B:	Spectrum analyzer
Option C:	Logic analyzer
Option D:	Frequency counter
Q24.	For synchrophasor fundamental which power flow may be considered
Option A:	Active power
Option B:	Reactive power
Option C:	Active and reactive both
Option D:	Apparent power
Q25.	A phase measurement unit has been defined as a device that produces
Option A:	time synchronizing signals
Option B:	voltage and /or current signal
Option C:	time synchronizing signals and voltage and /or current signal
Option D:	Random signal

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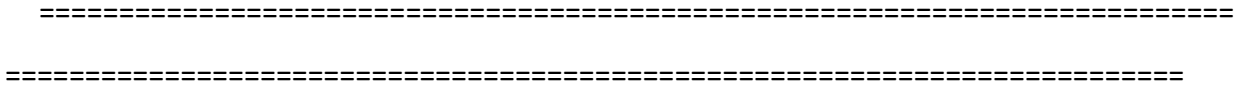
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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	D
Q3.	B
Q4	B
Q5	C
Q6	A
Q7	D
Q8.	A
Q9.	B
Q10.	B
Q11.	C
Q12.	B
Q13.	A
Q14.	B
Q15.	A
Q16.	C

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