

No	Question	Option A	Option B	Option C	Option D
1	Cross arms are made of	Iron rod	Angle iron	Asbestos sheet	Steel
2	Multicore cables are used upto	2000V	5000 V	11000 V	33000 V
3	A lead sheath in the underground cable is provided	To protect against the entry of moisture	To protect the cable from mechanical injury	To provide strength to cable	To provide proper insulation
4	Open circuit fault in the cable is found by	Induction test	Murray loop test	Capacity test	Fall of potential test
5	The function of conservator in a transformer	to prevent flow of moisture into the tank	to prevent flow of air into the tank	to improve the power factor	to take care of expansion and contraction of oil
6	The chemical used in breather is	sodium chloride	silica gel	copper sulphate	silica sand
7	Buchholz relay is generally not provided on transformers below	5 kVA	100 kVA	50 kVA	500 kVA
8	Main equipments required for filling the oil in transformers	High vacuum filtering plant	Oil storage tank with silica gel breather	Oil dielectric strength tester	All of these above
9	Lightning arresters are located	at the tower top	at the generator terminal	at the transformer terminal	at the line entry point of the power house
10	Control and relays panels are always located	in open space	in control room	in the switch yard	in close space
11	The fault clearing time of a circuit breaker is usually	few minutes	few seconds	one second	few cycles of supply voltage
12	The power factor of the arc in circuit breaker is	always zero	always unity	always lagging	always leading
13	Main causes of electrical accidents are	lack of earthing	lack of proper protective device	not obeying instructions	Working on live equipment
14	Painful electric shock is felt when magnitude of current passing through human body is	less than 1 ma	from 1 to 8 ma	from 8 to 15 ma	from 15 to 50 ma
15	The magnitude of fault current depends upon	total impedance upto fault	voltage at the fault point	load current being supplied before occurrence of fault	both (a) and (b)
16	The Z per phase of a 3- $\phi$ transmission line on a base of 100 MVA 100 kV is 2 pu. The value of this Z on a base of 400 MVA and 400 kV would be	1.5 pu.	1.0 pu	0.5 pu	0.25 pu
17	Zero-sequence currents can flow from a line to transformer bank if the windings are in	grounded star/delta	delta/star	star/grounded star	delta/delta
18	Zero-sequence currents flow in a transmission line when there is	double line to ground fault	an overvoltage in the line caused by charged loads.	a line to line faults.	a fault across all the three lines.
19	The contact resistance of a circuit breaker is about	20 $\Omega$	2 $\Omega$	20 m $\Omega$	20 $\mu \Omega$
20	The recovery voltage will be maximum for power factor of	zero	0.5	0.707	unity
21	The pressure of SF <sub>6</sub> gas in a circuit breaker is around	0.25kg/cm <sup>2</sup>	1 kg/cm <sup>2</sup>	4 kg/cm <sup>2</sup>	40 kg/cm <sup>2</sup>
22	In a vacuum circuit breaker, the vacuum is of the order of	1 torr	10-6 torr	10-12 torr	10-16 torr
23	A thermal protection switch provides protection against	overload	temperature	short-circuit	over-voltage
24	Circuit breakers with reliability and negligible maintenance is	Air-blast	SF <sub>6</sub>	oil	Vacuum
25	The most suitable circuit breaker for short line fault without switching resistor is	oil	air-blast	SF <sub>6</sub>	air-break
26	Making capacity of a circuit breaker is equal to	2.55 times symmetrical breaking current.	1.5 times symmetrical breaking current.	$\sqrt{2}$ times symmetrical breaking current.	symmetrical breaking current.
27	Current rating is not necessary in case of	isolators	circuit breakers	load break switches	circuit breakers and load break switches
28	Protective relays can be designed to respond to	light intensity	temperature	resistance, reactance or impedance.	all of the above
29	Under voltage relays are mostly used for	transformer protection	busbar protection	motor protection	feeder protection
30	A reactance relay is	voltage restrained over-current relay.	voltage restrained directional relay.	directional restrained over-current relay.	directional restrained over-voltage relay.
31	Mho relays have an R-X plane characteristic depicted by	a straight line passing through origin.	a straight line parallel to X-axis.	a straight line parallel to R-axis.	a circle passing through origin.
32	For phase fault the relay used is	distance relay	thermal relay	over-current relay	induction relay.

33	Where severe synchronising swing occurs, the relay employed is	impedance relay	mho relay	reactance relay	induction relay.
34	In three-phase system, what is the minimum number of relays used to detect phase-to-phase faults	three	one	six	two
35	A static coincidence circuit is used for	phase comparison	amplitude comparison	starting an impedance relay	biasing a mho relay
36	The percent bias for a generator protection lies between	5 to 10	10to 15	15 to 20	20 to 25
37	Magnetising in-rush current in a transformer in rich is	3rd harmonic component	5th harmonic component	2nd harmonic component	all odd harmonic components
38	Bus-coupler is very essential in	single bus-bar arrangement	ring bus-bar arrangement	double bus, double breaker arrangement	main and transfer bus
39	For complete protection of a 3-phase transmission line we require	three phase and three earth fault relays.	three phase and two earth fault relays.	two phase and two earth fault relays.	two phase and one earth fault relay.
40	Impulse ratios of insulators and lightning arresters should be	both low.	high and low respectively.	low and high respectively.	both high.
41	In a thyrite lightning arrester the resistance	varies linearly with the applied voltage.	increases with the applied voltage.	decreases linearly with the applied voltage.	is high at low current and low at high current.
42	A thyrite type lightning arrester	blocks the surge voltage appearing in a line.	absorbs the surge voltage appearing in a line.	offers a low resistance path to the surge appearing in a line.	returns the surge back to the source.
43	Steepness of the travelling waves is attenuated by	line resistance.	line inductance.	line capacitance.	both (b) and (c )
44	The insulation level of a 400 kV EHV overhead transmission line is decided on the basis of	lightning over-voltage	switching over-voltage.	corona inception voltage.	radio and TV interference.
45	The advantage of neutral earthing is	safety of personnel.	reduction of earth fault current.	elimination of arcing fault current.	none ofhte above.
46	Resistance earthing is employed for voltages between	3.3 and 11 kV.	11 and 33 kV.	33 and 66 kV.	66 kV and 132 kV.
47	The method of neutral grounding affects the	positive-sequence network.	negative-sequence network.	zero-sequence network.	both positive-and zero-sequence networks.
48	The voltage of a transmission line can be controlled by	excitation control.	using induction regulator.	reactive VAR injection methods.	any of the above
49	Shunt compensation in an EHV line is used to	improve stability.	reduce fault level.	improve the voltage profile.	substitute for synchronous phase modifier.
50	For cost and safety the outdoor substations are employed for voltages	11 kV and above.	33 kV and above.	66 kV and above.	110 kV and above.
51	AC network analyser isemployed for solving the problems of	load flow.	load flow and stability.	load flow and short-circuit.	load flow, stability and short-circuit.
52	The load carrying capability of a long ac transmission line is	always limited by the conductor size.	limited by stability considerations.	reduced at low ambient temperatures.	decreased by the use of bundled conductors of single conductors.
53	Steady-state stability of a power system is improved by	reducing fault clearing time.	using double circuit line instead of single circuit line.	single pole switching.	decreasing generator inertia.
54	The critical clearing time of a fault in power system is realated to	reactive power limit.	short-circuit limit.	steady-state stability limit.	transient stability limit.
55	The transient stability limit of a power system can be appreciably increased by introducing	series inductance.	shunt inductance.	series capacitance.	shunt capacitance.
56	Load-flow study is carried out for	load-frequency control.	planning of power system.	fault calculations.	study of stability of the system.
57	In load-flow analysis, the load connected at a bus is represented as	constant current drawn from the bus.	constant impedance connected at the bus.	voltage and frequency dependent source at the bus.	constant real and reactive power drawn from the bus.
58	In a load-flow study a PV bus is treated as a PQ bus when	voltage limit is violated.	active power limit is violated.	phase angle is high.	reactive power limit is violated.
59	A 12-bus power system has 3 voltage controlled buses. The dimensions of the Jacobian matrix will be	21 X 21	21 X 19	19 X 19	19 X 21
60	Transmission efficiency increases as	voltage increases but power factor decreases	voltage decreases but power factor increases	voltage and power factor both increase	voltage and power factor both decrease.

61	What type of insulators will be used if the direction of the transmission line is changed?	strain type	shackle type	Pin type.	suspension type
62	Feeders are used to link	receiving end substation to distribution transformer	distribution transformer to consumer's area	line in the consumer area to the premises of the consumer	generating station with receiving end substation.
63	The secondary distribution system (A.C.) employs	3.0 kV, 3-phase, 3 wire system	6.6 kV, 3-phase, 3 wire system	1 kV, 3-phase, 3 wire system	400/230 V, 3-phase, 4 wire system
64	In order to increase the limit of distance of transmission line	synchronous condensers are used	series resistances are used	series capacitors and shunt reactors are used.	shunt capacitors and series reactors are used.
65	A power system load bus usually run with	unity power factor	leading power factor	lagging power factor	zero power factor
66	To compensate Ferranti effect	shunt capacitors are used	series capacitors are used	shunt inductors are used	series inductors are used
67	Connection of shunt capacitors at the receiving end bus of power line	increases regulation	decreases regulation	does not affect regulation	maximise the regulation
68	In a power system reactive power is necessary	for power transmission	for stabilizing voltage level	for stabilizing frequency	for counter acting the effect of reactance in the transmission system
69	In Fast Decoupled Load Flow method, the matrices [H] and [L] are	singular	zero	square	unity
70	The characteristic impedance of a transmission line depends upon	conductivity of the material	shape of the conductor	surface treatment of the conductors	geometrical configuration of the conductors
71	A capacitor connected in parallel with an equipment provides some degree of protection against	neutral displacement	Ferranti effect	loss of stability	surges.
72	Apart from the 'skin effect' the non-uniformity of the current distribution is also caused by	Faraday's effect	Bundledconductor	Proximity effect	Ferranti effect
73	If we increase the length of transmission line, the charging current	Decreases	Increases	Remains the same	Not affected
74	The method of images originally suggested by Lord Kelvin is used in	Calculation of inductance	Calculation of resistance	Effect of earth on line capacitance	None of the above
75	The capacitance becomes increasingly important for	short transmission lines.	medium transmission lines.	Both (a) and (b)	Long transmission lines
76	A long line under no load conditions, for a good voltage profile needs	Shunt resistance at receiving-end	Shunt reactors at the receiving-end	Shunt capacitors at receiving-end	all of the above
77	With 100% series compensation of lines	Low transient voltage	High transient current	The current is series resonant at power frequency	both (b) and (c)
78	In Gauss-Seidel method of power flow problem, the number of iterations may be reduced if the correction in voltage at each bus is multiplied by	Gauss constant	Acceleration constant	Blocking factor	Deceleration constant
79	For accurate load flow calculations on large power systems, the best method is	Newton Raphson method	Gauss Seidel method	Decoupled method	Fast Decoupled Load Flow
80	Which one of the following is not true for HVDC transmission?	Corona loss is more than a HVAC	Back-to-back connection is possible	Distance limitation exists	Extra reactor power has to be supplied
81	The Parliament of India consists of	Rajya Sabha and Lok Sabha only	Rajya Sabha, Lok Sabha and the Prime Minister	Rajya Sabha, Lok Sabha and the President	Rajya Sabha, Lok Sabha and the Chief Justice of India
82	Which of the following is an element of Heavy Water?	Deuterium	Nitrogen	Calcium	Magnesium
83	Which bird is considered to be the fastest in the world?	Black Eagle	Swift	Peregrine Falcon	Silver Hawk
84	Which part of the human body is most vulnerable to nuclear radiation?	skin	lungs	eyes	bone marrow
85	Find the correct Combination	DC motor - Nikola Tesla	Laptop - Sinclair	Computer - Digital Corp.	CD - Sony
86	Name India's first electric car manufactured by Maini Group	Reva	RAV4	Pirus	RAV 6

87	Which sportsman promoted the portal kheladi.com, which was eventually acquired by Sify?	Geet Sethi	Sunil Gavaskar	Anil Kumble	Mahesh Bhupathi
88	An android is any robot that	Has more than one basic function	Has the ability to make decisions and formulate plans	Is built by other robots	Looks and acts like a human
89	When is Martyr's Day celebrated	2nd October	30th January	22nd March	24th January
90	Who is the first and fastest indian to circumnavigate the earth by car?	Parmjeet Singh	Mihir Sen	Narayan Karthikeyan	Saloo - Neha Choudhari
91	<b>Choose the meaning of the idiom or phrase :-</b> Cut both ends	Behaves dishonestly.	Works for both sides.	Creates discord among friends	Argues in support of both sides
92	<b>Choose the meaning of the idiom or phrase :-</b> Took him to task	Ridiculed him	Suspended him	Reprimanded him	Grinned him
93	<b>Choose the meaning of the idiom or phrase :-</b> Got the sack from	Resigned	Got fired of	Was demoted by	Was dismissed from
94	<b>Find part of sentence with grammatical or idiomatic error in it :- </b> Since I meet Dinesh last Saturday he has been contacting me everyday over phone	Since I meet	Dinesh last Saturday	he has been contacting me	everday over phone
95	<b>Find part of sentence with grammatical or idiomatic error in it :- </b> Had you informed me earlier I would have certainly purchase the car from you	Had you informed me earlier	I would have	certainly purchase	the car from you
96	<b>Find part of sentence with grammatical or idiomatic error in it :- </b> We have carfully considered the importance of issues raised in the report	We have carefully	considered the	importance of issues raised	in the report
97	<b>Find part of sentence with grammatical or idiomatic error in it :- </b> Due to his health problem Mani retired from the service last year	Due to his health problem	Mani retired	from the service	last year
98	The Judge used his_____power and let him off with reprimand.	legal	discretionary	special	absolute
99	Man is sometimes_____in destroying something that is most precious to him	exaggerated	astonished	instrumental	accountable
100	It is time that both modernists and traditionalists reconsidered the _____ of secularism in political life.	essentially	indispensability	justification	implications