

# NADAR SARASWATHI COLLEGE OF ENGINEERING AND TECHNOLOGY, THENI.

<b>Course/Branch</b> : B.E / EEE	<b>Year / Semester</b> :IV/VII	Format No.	NAC/TLP-07a.13
<b>Subject Code</b> :EE8701	<b>Subject Name</b> : High Voltage Engineering	Rev. No.	02
<b>Unit No</b> : 1	<b>Unit Name</b> : <b>Over voltages in electrical power systems</b>	Date	30.09.2020

## OBJECTIVE TYPE QUESTION BANK

S. No.	Objective Questions (MCQ /True or False / Fill up with Choices )	BTL
1	Which theory explains the mechanism for breakdown under different conditions? <b>A. Townsend theory</b> B. Only (a) and (b) C. Clump theory D. Streamer theory	L2
2	The Townsend mechanism explains the phenomenon of breakdown <b>A. Only at low pressure</b> B. Only at high pressure C. Only at very high pressure D. Only bat very low pressure	L2
3	A gas in normal state is almost a perfect <b>A. Insulator</b> B. Dielectric C. Semi-conductor D. Conductor	L4
4	Field in case of rod gaps and sphere gaps are A. Non-uniform, non-uniform <b>B. Non-uniform, uniform</b> C. Uniform, uniform D. Uniform, non-uniform	L5
5	In Breakdown tests, the tests voltages required for these tests are usually of the order of A. 20 – 50 kV B. 100 – 200 kV C. 0 – 10 kV <b>D. 50 – 100 kV</b>	L1
6	Corona effect can be identified by A. bushy sparks B. arcing between conductors and earth. <b>C. faint violet glow</b> D. red light	
7	Switching surge is <b>A. short duration transient voltage</b> B. hyperbolically dying voltage. C. high voltage ac D. high voltage dc	
8	Surge voltage originate in power systems due to A. Faults B. lightning C. Switching operations <b>D. any of the above.</b>	
9	Corona results in A. increased capacitive reactance of transmission lines	

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		<p>B. better regulation. C. improvement in power factor <b>D. radio interference</b></p>	
10		<p>The voltage which produces the loss of dielectric strength of insulation is known as A. Withstand voltage B. Impulse voltage C. Flashover voltage <b>D. Disruptive discharge voltage</b></p>	
11		<p>The electrical breakdown strength of insulating materials depends on A. pressure, temperature and humidity B. nature of applied voltage C. imperfections in dielectric materia <b>D. all of the above.</b></p>	
12		<p>Intrinsic breakdown occurs in time of the order of A. 105 s B. 108 s <b>C. 10-8 s</b> D. 10-5 s</p>	
13		<p>Which of the following is the protective device against lightning over voltages? <b>A. All of the above</b> B. Horn gaps C. Rod gaps D. Surge absorbers</p>	
14		<p>A lightning arrester provides <b>A. A low impedance path between line and ground, during operation</b> B. A high impedance path between line and ground, during operation C. A low resistance path between line and ground, during operation D. A high resistance path between line and ground, during operation</p>	
15		<p>The most recommended gap under usual conditions for measuring the voltages is A. All of these B. Rod gap C. Field gap <b>D. Sphere gap</b></p>	
16		<p>The phenomenon of corona is generally accompanied by A. Magnetic Hum B. A Bang C. All Of The Above. <b>D. A Hissing sound</b></p>	
17		<p>Which of the following statement about corona is incorrect ? A. Corona results in loss of power in transmission B. Corona gives rise to radio interference <b>C. Corona discharge can be observed as red luminescence</b> D. Corona is always accompanied by a hissing noise.</p>	

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18	The value of Thunderstorm Days in india is..... <b>A. 30 to 50</b> B. 39 C. 42	
19	The test which is performed on circuit breakers: A. Short time current test B. Making capacity test C. Breaking capacity test D. 2 & 3 <b>E. All of these</b>	
20	The ideal lightning arrester is the one which: A. Stops the flow of electric current above rated voltage <b>B. Conducts electric current above rated voltage</b> C. Any of these D. None of these	
21	During impulse withstand test the impulse applied to the insulator is: <b>A. 1/50 <math>\mu</math> sec</b> B. 0.1/0.05 $\mu$ sec C. 0.01/50 $\mu$ sec D. 0.001/50 $\mu$ sec	
22	The IR test of capacitor is performed by using _____: A. A Schering bridge B. The Chubb-Fortescue method C. The standard Ohmmeter <b>D. A Megger</b>	
23	The test which is performed on circuit breakers: A. Short time current test B. Making capacity test C. Breaking capacity test D. 2 & 3 <b>E. All of these</b>	
24	The necessary condition for performing sphere gap test is: A. The length of gap should be 4 times greater than radius of sphere B. An impulse wave of 50000 kV should be applied C. Wave front time should be between 0.7 $\mu$ s and 0.8 $\mu$ s <b>D. The length of gap should be smaller than radius of sphere</b>	
25	_____ is a type of surge diverter: A. Rod gap B. Valve type of lightning arrester C. Protector tube <b>D. All above</b>	
26	statement which correctly explains this test is: A. The cable is bent and piston is allowed to fall on it at a comparatively lower power	

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		<p>B. Firstly voltage test is performed then entire cable is bent in zig-zag position and voltage regulation is checked during process</p> <p><b>C. Cable is bent around cylinder to make one turn is unwound, rewound thrice following a voltage test in start and end</b></p> <p>D. None of these</p>	
27		<p>The correct statement about Paschen's law states that breakdown voltage of a uniform gap is directly proportional to:</p> <p>A. Pressure of the gas</p> <p>B. Separation of electrode</p> <p>C. Material of electrode</p> <p><b>D. All of these</b></p>	
28		<p>For determining intrinsic strength of dielectric the applied voltage should be of the order of:</p> <p>A. 10-8 sec</p> <p>B. 10-16 sec</p> <p>C. 10-24 sec</p> <p><b>D. 10-32 sec</b></p>	
29		<p>The worst gap for measuring the voltages is:</p> <p>A. Field gap</p> <p>B. Sphere gap</p> <p><b>C. Rod gap</b></p> <p>D. All of these</p>	
30		<p>The phenomenon of corona takes place in case of:</p> <p>A. Alternating currents</p> <p>B. Direct Currents</p> <p><b>C. Both of these</b></p> <p>D. None of these</p>	
31		<p>The gas which is employed as insulating material:</p> <p>A. Oxygen</p> <p><b>B. Sulphur Hexafluoride</b></p> <p>C. Tetrafluoromethane</p> <p>D. Ethylamine</p>	
32		<p>impulse ratios of insulators and lightning arresters should be</p> <p>A.Both low</p> <p><b>B. High and low respectively</b></p> <p>C. Low and high respectively</p> <p>D. Both high</p>	
33		<p>In a thyrite lightning arrester the resistance</p> <p>A. Varies linearly with the applied voltage</p> <p>B. Increases with the applied voltage</p> <p>C. Decreases linearly with the applied voltage</p> <p><b>D. Is high at low current and low at high current</b></p>	

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34	<p>A thyrite type lightning arrester</p> <p>A. Blocks the surge voltage appearing in a line</p> <p>B. Absorbs the surge voltage appearing in a line</p> <p><b>C. Offers a low resistance path to the surge appearing in a line</b></p> <p>D. Returns the surge back to the source</p>	
35	<p>Which of the following is the protective device against lightning over voltages?</p> <p>A. Rod gaps</p> <p>B. Surge absorbers</p> <p>C. Horn gaps</p> <p><b>D. All of the above</b></p>	
36	<p>A lightning arrester provides</p> <p>A. A low impedance path between line and ground, during operation</p> <p>B. A high impedance path between line and ground, during operation</p> <p><b>C. A low resistance path between line and ground, during operation</b></p> <p>D. A high resistance path between line and ground, during operation</p>	
37	<p>Outdoor switchgear is generally used for voltage beyond</p> <p>A. 11 KV</p> <p>B. 33 KV</p> <p><b>C. 66 KV</b></p> <p>D. 132 KV</p>	
38	<p>The least expensive protection for over current in low-voltage system is</p> <p><b>A. Rewirable fuse</b></p> <p>B. Isolator</p> <p>C. Circuit breaker</p> <p>D. Air-break switch</p>	
39	<p>Purpose of backup protection is</p> <p>A. To increase the speed</p> <p>B. To increase a reach</p> <p>C. To leave no blind spot</p> <p><b>D. To guard against failure of primary</b></p>	
40	<p>We do not require any protection against prime mover failure in case of</p> <p><b>A. Turbo generator sets</b></p> <p>B. Hydro generator sets</p> <p>C. Diesel engine driven alternators</p> <p>D. Back pressure turbo generators</p>	