

VI SEM (E&E) HIGH VOLTAGE ENGINEERING ISJEEEC601
ASSIGNMENT - I

- 1) What is impulse current? With a neat diagram, explain the generation of impulse current.
- 2) With a neat diagram, explain the working of high ohmic series resistance.
- 3) With a neat diagram, explain the working of generating voltmeter.
- 4) With a neat diagram, explain the working of peak reading a.c. voltmeter.
- 5) With a neat diagram, explain the working of electrostatic voltmeter.
- 6) With a neat diagram, explain the construction and working of sphere gap method.
- 7) Explain the factors influencing the spark over voltages of sphere gaps.
- 8) Explain the different collision processes occurring in gases.
- 9) Explain the ionisation processes occurring in gases.
- 10) Define Townsend's ionisation coefficient and derive the expression $I = I_0 e^{\alpha d}$
- 11) Derive the expression $I = I_0 e^{\alpha d} / \{1 - \gamma [e^{\alpha d} - 1]\}$
- 12) Explain Townsend's criteria for breakdown in gases

- 13) Explain the breakdown phenomena in electronegative gases
- 14) Explain streamer theory of breakdown.
- 15) Explain PASCHEN'S Law.
- 16) Explain Liquid insulators and the properties of Liquid insulators.
- 17) what is PURE Liquid insulators?
Explain the breakdown phenomena in PURE Liquid insulators.
- 18) what is COMMERCIAL Liquid insulators?
Explain the breakdown phenomena in COMMERCIAL LIQUIDS.
- 19) what is Solid dielectric?
~~where~~ Listout different Solid dielectrics used in Electrical Engineering.
- 20) Explain the breakdown phenomena in SOLID dielectrics.

REFERENCES -

- (1) HIGH VOLTAGE ENGINEERING - Kamranj & Naidu
- (2) ON line materials
- (3) High voltage Engineering - Wadhwa
- (4) Regular class notes

COURSE ~~Notes~~ INSTRUCTOR = PROF. G.D. KAMALAPUR