Reg. No. : | | | | | | | | | | |

Question Paper Code: 31363

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Sixth Semester

Electrical and Electronics Engineering

01UEE603 - HIGH VOLTAGE ENGINEERING

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List out various causes of over voltages.
2. What is lightning?
3. Define corona discharge.
4. What is composite dielectric?
5. Name the circuit used to generate HVDC.
6. What are the impulse wave specifications?
7. List various problems involved in high voltage measurement.
8. What is generating voltmeter?
9. Define disruptive discharge voltage.
10. List out various type of test on cable.

PART - B (5 x 16 = 80 Marks)

11. (a) Describe protection against lightning over voltages and switching surges of short duration. (16)

Or

(b) With neat diagram explain Bewley's lattice diagram? (16)

12. (a) Explain gaseous breakdown in non-uniform field. (16)

Or

(b) Describe conduction and breakdown in pure liquid. (16)

13. (a) With neat diagram explain principle of working of Vande Graff Generator. (16)

Or

(b) With diagram describe working of tripping and control of impulse generator. (16)

14. (a) With diagram explain how to measure DC high voltage using series resistance micro ammeter and resistance potential divider? (16)

Or

(b) With diagram explain horizontal arrangement of sphere gap for measurement of high DC, AC and impulse voltages. (16)

15. (a) Describe various type of test carried over insulator. (16)

Or

(b) Explain various types of high voltage test on transformer. (16)