

**Code No: D5602****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.TECH II - SEMESTER EXAMINATIONS, APRIL/MAY 2012****PARTIAL DISCHARGE IN HIGH VOLTAGE EQUIPMENT****(POWER SYSTEMS (HIGH VOLTAGE))****Time: 3hours****Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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1. Explain partial discharge? Also explain the inception of internal discharges, and inception of corona.
2. Explain discharges at A.C. voltages, D.C. voltages and impulse voltages.
3. Explain the quantities which are related to the magnitude of discharges and choice of PD as a measure for discharge.
4. Discuss the method of balanced detection for locating partial discharges in electrical equipment.
5. Explain the discharge detection using balanced discharge detector scheme.
6. Explain the location of partial discharges by travelling waves.
7. How the discharge detection can be estimated in power cables with a neat circuit diagram?
- 8.a) Write short notes on evaluation of discharges.  
b) Explain the mechanisms of detection of equipment due to p.d.

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