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Total No. of Questions: 08

## M.Tech.(EE) (2013 Batch E-III) (Sem.-3) EHVAC & HVDC TRANSMISSION SYSTEM

Subject Code: MTEE-301C Paper ID: [A3302]

Time: 3 Hrs. Max. Marks: 100

## **INSTRUCTION TO CANDIDATES:**

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- Q1. Compare Ac and system with respect to Economics, Reliability and stability of transmission line. Describe HVDC system.
- Q2 a) What is the effect of Electrostatic field on humans?
  - b) Explain Electrical characteristics of EHV cables.
- Q3. Discuss control scheme of HVDC Link. Explain converter controllers and different types of mode of Links
- Q4. What are the causes of Harmonics in HVDC system? Explain criteria of design of DC filters.
- O5. Write a note on:
  - a) HVDC breakers.
  - b) Effect of smoothing reactors on voltage and current.
- Q6. a) Discuss various faults existing in converter station.
  - b) Explain in detail the reactive power requirement in HVDC converter.
- Q7. a) Why does not line generated corona noise not interfere with TV reception or FM reception?
  - b) Design of EHV-lines based on transient over voltages.
- Q8. a) Explain solution techniques of DC power Flow.
  - b) What are problems in parallel operation of HVDC/AC system?

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