

**End Semester Examinations - 2015-16 Even Semester - May 2016**

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**14EE2016 Power System Protection and Switchgear**

**Set A**

**Time : 3 hrs**  
**Total Marks: 100**

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1.           a. Discuss the consequences of faults on a power system.(10)  
              b. Write brief notes on the operation and applications of Current Transformer.(10)

**OR**
  2.           Describe the construction with a neat diagram and the principle of operation of directional overcurrent relay.
  3.           What are the abnormal conditions in a large synchronous generator against which protection is necessary?  
              Draw neatly and explain stator interturn fault protection scheme.

**OR**
  4.           Discuss the time graded overcurrent protection for
    - a). Radial Feeder
    - b) Parallel Feeder
    - c) Ring main system

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  5.           Explain briefly the arc phenomenon and various methods of arc extinction in a circuit breaker.

**OR**
  6.           With a neat diagram, explain the construction, operating principle, advantages and applications of SF<sub>6</sub> circuit breaker.
  7.           a. Illustrate the significance of lightning phenomenon.(10)  
              b. Explain the importance of protective schemes against lightning.(10)

**OR**
  8.           Write notes on (a) Solid Grounding (b) Resistance Grounding (c) Arc Suppression Coil
  9.           Discuss the different types of lightning arresters.

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**Wishing you All the Best**

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