

- 6 a. Explain the principle and construction of an electrostatic voltmeter for very high voltages. (08 Marks)
- b. A generating voltmeter has to be designed, so that it can have a range from 20 to 200kV d.c. If the indicating meter reads a minimum current of $2\mu\text{A}$ and maximum current of $25\mu\text{A}$, what should the capacitance of the generating voltmeter be? Assume that the driving motor speed is 1500 rpm. (06 Marks)
- c. Write a brief note on 'Klydonograph'. (06 Marks)
- 7 a. Explain the high voltage Schering bridge for the $\tan \delta$ and capacitance measurement of insulators. (08 Marks)
- b. Describe the transformer ratio arm bridge for audio frequency range measurements. (06 Marks)
- c. Discuss the method of balanced detection for locating partial discharges in electrical equipment. (06 Marks)
- 8 a. Mention the different electrical tests done on isolators and circuit breakers. (10 Marks)
- b. Describe various electrical tests done on transformers. (10 Marks)
