

**VIDYASAGAR METROPOLITAN COLLEGE**

**PRACTICAL EXAMINATION**

**PAPER-CC6**

**Full Marks: 30**

**Time: 2hr**

**Answer Any Five Questions**

- (a) What do you mean by Draper point? Is it related with material's properties?

(b) What are the processes of heat transfer? What is the relation between radiated heat by black body and its temperature? (3+3)
- (a) Why does a solid expand due to increase in temperature? What are the differences between a Telescope and Microscope?

(b) What do you mean by vernier constant and screw pitch? How does these affect the accuracy of the readings? (3+3)
- (a) What is the definition of a thermocouple? What do you mean by neutral temperature of a thermocouple?

(b) Classically describe: How Thermo emf generates in a Thermocouple? (3+3)
- (a) What are differences between Ballistic and dead beat galvanometer? Write down two types of thermocouple, used in high-temperature and low-temperature measurement?

(b) How a thermocouple can be used to measure temperature? (3+3)
- (a) What do you mean by boiling point and melting point? : comment on entropy regarding this.

(b) Draw figure of an operational amplifier and write down the characteristic of it. (3+3)
- (a) Define thermal conductivity. What do you mean by Bedford's correction in thermal conductivity measurement?

(b) What do you mean by 'thermal equilibrium' and 'steady state'? (3+3)
- (a) Briefly explain: platinum resistance may be used to measure temperature.

(b) How potentiometer may be used to estimate an unknown resistance? (3+3)