CITY COLLEGE
Internal Examination 2020−2021
Physics (Hons.) CBCS Semester 3
Paper: CC6 (Thermal Physics)
Time: 1 Hour; Full Marks: 20

Answer any <u>ten</u> questions from the following: 10×2=20

1. Explain in short the meaning of thermodynamic equilibrium.
2. State zeroth law of thermodynamics.
3. How can you define temperature of a system?
4. What do you mean by work done by a system in terms of internal energy?
5. Explain first law of thermodynamics.
6. Explain the term "Adiabatics are steeper than isotherms."
7. Define volume expansivity (β) and isothermal compressibility (K_T).
8. What do you mean by reversible and irreversible processes?
9. Define heat engine and refrigerator.
10. State second law of thermodynamics.
11. What do you mean by Carnot's theorem?
12. Explain Carnot's engine by drawing the Carnot's cycle. Define its efficiency.

Answer script must be emailed to **sem3hcityphysics@gmail.com** within 15 minutes of the end of the examination.