



**Note: Students are allowed to use calculator.**

**Student Name:**

**Q1/ A 10.3 g sample of a reddish-brown metal gave off 71.7 cal of heat as its temperature decreased from 97.5°C to 22.0°C. What is the specific heat of the metal? (5 Marks)**

**Q2/Which of these sentences are true (T) and which are false (F). Then correct the false statements: (5 Marks)**

- 1- Depending on the zeroth law of thermodynamics the system is not in thermal equilibrium.
- 2- The energy of vibrating atoms in solid is called the kinetic energy.
- 3- The unit of work is (kg. m/sec<sup>2</sup>).
- 4- Thermometer is an instrument used to measure just objects hotness.
- 5- Extensive Properties can be expressed in thermodynamic systems as follows:  $X_{A+B} \neq X_A + X_B$

**Q3/ Fill in the blanks with the correct answer: (Each blank holds 1 marks ) (6 Marks)**

- 1- The alcohol in glass thermometer temperature range is from ----- to -----.
- 2- The hotter objects in the Infrared Thermograms shown in -----.
- 3- Isolated thermodynamic systems is -----.
- 4- In Conduction process the energy moves from one object to another when -----.
- 5- Kinematics Mechanics refers to -----.

**Q4/Answer the following: (4 Marks)**

- A- Which temperature is hotter: 17 °C or 58 ° F?
- B- Convert the hottest temperature in (A) to Kelvin degrees.

**Dr. Wala Dizayee**

***Best Wishes***