PPSC Physics Topic 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	Which of the following in the best container for gas during adiabatic process.	A. Copper vessel B. Thermos flask C. Glass container D. Wooden container
2	Which law states that a change in the internal energy of a closed thermodynamic system is equal to the difference between the heat supplied to the system and teh amount of work by the system on the surrounding.	A. Zeroth law of thermodynamics B. First law of thermodynamics C. Second law of thermodynamics D. Third law of thermodynamics
3	The pressure of a goas is directly proportion to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
4	Thermodynamics deals with	A. Isolated systems B. The interactions among various parts of the system C. The microscopic behavior of a system D. The interactions between system and surrounding
5	The pressure of a gas is directly proportions to	A. Mean velocity of the molecules B. Mean square velocity of the molecules C. Root mean square velocity of the molecules D. Instantaneous velocity of the molecules
6	If temperature of the sink is decreased the efficiency of a Carnot engine	A. Increases B. Decreases C. Remains constant D. First increases and thend ecreases
7	In the free expansion of a perfect gas there is no.	A. work done B. Heat exchnged C. Internal energy changed D. All of the above
8	A cup of coffee at 80 ^{O}C is left to cool to 30 oc if the heat capacity of the cup and coffee is 2.0 kJ k-1 how much heat is released during the cooling.	A. 0.04 kJ B. 100 KJ C. 60 kJ D. 160 kJ
9	Gases exert pressure on walls of the vessels because gas molecules.	A. Possess momentum B. Have finite volume C. Collide with each other D. Obey gas laws
10	What is the necessary condition for Boyle's law to hold good.	A. Isothermal B. Adiabatic C. Isobaric D. Isochoric
11	One calorie equals to	A. 1.2 J B. 2.2 J C. 3.2 J D. 4.2 J
12	What makes the air coming out of a punctured tyre cool.	A. Isothermal expansion B. Adiabatic expension C. Flow at high speed D. Atmospheric pressure
13	To which law of thermodynamics, the concept of temperature is related to.	A. Zeroth law B. First law C. Second law D. Third law

14	Identify the irreversible process	A. Explosion of a bomb B. Slow expansion of a gas C. Slow compression of a gas D. Slow compression of an eleastic spring
15	A Carnot engine can be 100% efficient of the sink is at.	A. 0 k B. 0 oF C. 0 oC D. 273 K
16	Why freezer a refrigerator is located in the top section	A. Motor is not affected B. Heat gained from environment is less C. The entire chamber of freezer is cooled quickly D. Heat gained from environment is more
17	The specific heat capacity of a substance is the amount of heat required to.	A. Raise its temperature by 1 K B. Raise the temperature of 1 kg of the substance by 1 K C. Melt 1 kg of the substance D. Boil 1 kg of the substance
18	The gas thermometer is taken as the primary standard because.	A. Thermometers are easily reproducible B. Readings can be accurately taken C. No correction are necessary D. It produces he thermodynamic scale
19	Which of the following pairs represent units of the same physical quantity.	A. Kelvin and joule B. Kelvin and calrorie C. Newton and calorie D. Joule and calorie
20	The ration Cv/Cp = y for a diatomic gas like air is	A. 1.29 B. 1.30 C. 1.40 D. 1.67