PPSC Physics Chapter 3 Thermal Properties of Matter

Sr	Questions	Answers Choice
1	A heat engine can develop efficiency equal to 100% if the temperature of the sink is	A. Less than that of source B. Equal to that of source C. 0 K D. 0 ^oC
2	The amount of heat needed per unit mass to raise the temperature of a system one degree at constant pressure is numerically aqual to	A. The specific heat B. The specific thermal energy C. The specific heat at constant pressure D. the internal energy of the gas
3	Entropy of universe is increasing day by da due to.	A. Power generating processes B. Energy used into work C. Depletion of ozone D. All of the above
4	Which of the following has negative specific heat	A. Ne B. CO2 C. O2 D. Sturated vapours
5	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
6	The total gain in entropy of the working substance in a Carnot cycle is.	A. Positive B. Negative C. Infinite D. Constant
7	What is the amount of mechanical work done to melt 1 g of ic completely	A. 4.2 J B. 42 J C. 80 J D. 336 J
8	First law of thermodynamics is a	A. Boyle 's law B. Charles' law C. Law of energy conservation D. Steffen Boltzmann law
9	Mean free path of gas molecules is inversely proportional to its	A. Volume B. Pressure C. Temperature D. Size
10	Gas law PV = constant is for	A. Adiabatic change B. Isothermal changes C. Isobaric changes D. Isochoric changes
11	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
12	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
13	In an isobaric process there is no.	A. Pressure change B. Internal energy change C. Heat exchanged D. volume change or work done
14	The thermal inertia of a thermodynamic system is known as its.	A. Entropy B. Enthalpy C. Isothermal conduction D. Adiabatic conduction

15	In Isochoric process there is no	A. Work done B. Internal energy change C. Volume change or work done D. Heat exchanged
16	Significant motion for the molecules of a monoatomic gas is.	A. Rotatory B. Vibratory C. Translatory D. Random
17	Which one of the following gases posses maximum oot mean square velocity.	A. Hydrogen B. Oxygen C. Nitrogen D. Carbon dioxide
18	If the pressure in a closed vessel is reduced by drawing some gas the mean free path of the gas molecules.	A. Decreases B. Remains constant C. Increases D. First increases then decreases
19	if temperature eon Celsius scale is 50 oC the temperature on Fahrenheit scale will be.	A. 102 ^oF B. 108 ^oF C. 112 ^oF D. 122 ^oF
20	A given quantity of an ideal gas is at pressure P and temperature T What is the isothermal bulk modulus of the gas.	A. 2/3 P B. P C. 2P D. 3/2 P