

Physics ICS Part 1 Chapter 6 Online Test

| Sr | Questions | Answers Choice |
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| 1 | The change in internal energy is defined as. | <p>A. $Q - W$</p> <p>B. $Q - T$</p> <p>C. $Q + P$</p> <p>D. $Q - P$</p> |
| 2 | The efficiency of Carnot engine is always. | <p>A. Greater than real engine</p> <p>B. Less than real engine</p> <p>C. Equal to the real engine</p> <p>D. Both a and b</p> |
| 3 | An addition of 400 J of heat causes the increase in internal energy of system is equal to 300 J, then work done will be | <p>A. 100 J</p> <p>B. 200 J</p> <p>C. 300 J</p> <p>D. 400 J</p> |
| 4 | A system does 600 J of work and at the same time has its internal energy increased by 320 J. How much heat has been supplied. | <p>A. 920 J</p> <p>B. 280 J</p> <p>C. 600 J</p> <p>D. 200 J</p> |
| 5 | In all natural processes where heat flow from one system to another there is always a net increase in | <p>A. Pressure</p> <p>B. Entropy</p> <p>C. Work</p> <p>D. Volume</p> |
| 6 | When the system is expanded by adding heat energy, then the work done will be | <p>A. Positive and on the system</p> <p>B. Negative and on the system</p> <p>C. Positive and by the system</p> <p>D. Negative and by the system</p> |
| 7 | 'R' is called | <p>A. Universal constant</p> <p>B. Universal per molecule constant</p> <p>C. Universal gas constant</p> <p>D. All of the above</p> |
| 8 | According to kinetic theory of gases, the size of the molecule is. | <p>A. Much smaller than the separation between molecules</p> <p>B. Much larger than the separation between molecules</p> <p>C. Both a and b</p> <p>D. Much larger than the separation between atoms</p> |
| 9 | In an isothermal change, internal energy. | <p>A. Decreases</p> <p>B. Increases</p> <p>C. Remains same</p> <p>D. Becomes zero</p> |
| 10 | Collision between gas molecules are perfectly | <p>A. Elastic</p> <p>B. Inelastic</p> <p>C. Neither elastic nor inelastic</p> <p>D. All of these</p> |
| 11 | Carnot Cycle is | <p>A. Reversible</p> <p>B. Irreversible</p> <p>C. Both</p> <p>D. $C_p - C_v = R$</p> |
| 12 | When two objects are made in thermal contact having same temperature then they are at. | <p>A. Thermal Equilibrium</p> <p>B. Chemical equilibrium</p> <p>C. Mechanical Equilibrium</p> <p>D. Physical Equilibrium</p> |

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| 13 | No entropy change is associated with | <p>A. Isothermal process</p> <p>B. Adiabatic process</p> <p>C. Isobaric process</p> <p>D. Isochoric process</p> |
| 14 | The gas molecules are in | <p>A. Linear motion</p> <p>B. Random Motion</p> <p>C. Brownian motion</p> <p>D. Circulatory motion</p> |
| 15 | In an adiabatic process, there is no. | <p>A. Change in temperature</p> <p>B. Exchange of heat</p> <p>C. Change in internal energy</p> <p>D. Work done</p> |
| 16 | Change in entropy is maximum when temperature of source is that.....of sink | <p>A. Greater than</p> <p>B. Less than</p> <p>C. Equal to</p> <p>D. Zero</p> |
| 17 | Boyle's law states that " The volume of a given mass of a gas is....." | <p>A. Directly proportional to absolute temperature</p> <p>B. Inversely proportional to absolute temperature</p> <p>C. Directly proportional to density</p> <p>D. Inversely proportional to pressure</p> |
| 18 | A device which converts thermal energy into mechanical energy is called. | <p>A. Turbine</p> <p>B. Heat engine</p> <p>C. Carnot engine</p> <p>D. Refrigerator</p> |
| 19 | KE of molecules of an ideal gas at absolute zero will be | <p>A. 0</p> <p>B. Infinite</p> <p>C. Very High</p> <p>D. Below zero</p> |
| 20 | Adiabatic change occurs when the gas expands or compressed. | <p>A. Rapidly</p> <p>B. Slowly</p> <p>C. Gradually</p> <p>D. Moderately</p> |