

## PPSC Physics Chapter 3 Thermal Properties of Matter

| Sr      |   |  |
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| Si      | Questions   | Answers Choice   |
| 1       | A perfect gas is one whose  | A. Molecules are masless     B. Molecules are energetic     C. Molecules are perfectly elastic     D. Molecules are at rest  |
| 2       | The door of an operating refrigerator in a closed room is opened after sometime the temperature of the room will be   | A. Lowered B. Raised C. Unaffected D. Become zero  |
| 3       | 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   |
| 4       | The volume of a goas at constant pressure is directly proportional to the temperature as measured on the.   | A. Celsius scale B. Kelvin scale C. Fahrenheit scale D. Baume scale  |
| 5       | From any substance the temperature and pressure at which the material can coexist in all three states in equilibrium is called.   | A. Critical point B. Triple point C. Initial point D. Final point  |
| 6       | In which temperature range water decreases in volume with increasing temperature.   | A. From 0 <sup>o</sup> C to 4 <sup>o</sup> C B. from 0 <sup>o</sup> C to 10 <sup>o</sup> C C. from 50 <sup>o</sup> C to 100 <sup>o</sup> C D. from 75 <sup>o</sup> C to 100 <sup>o</sup> C   |
| 7       | Which of the following is a thermodynamic temperature scale.  | A. Celsius scale B. Fahrenheit scale C. Kelvin scale D. Rankine scale  |
|         |   |  |
| 8       | What is the SI unit for thermal conductivity.   | A. W m-1 K-1<br>B. W m-2 k-2<br>C. W m-3 k-1<br>D. J kg -1 k-1   |
| 9       | What is the SI unit for thermal conductivity.  What is the heat required in Kilo joules when the temperature of 100 g of copper is raised thgough 20 K/. Specific heat capacity of copper is 0.4 x 10-3 kg -1 k-1   | B. W m-2 k-2<br>C. W m-3 k-1   |
|         | What is the heat required in Kilo joules when the temperature of 100 g of copper is raised  | B. W m-2 k-2<br>C. W m-3 k-1<br>D. J kg -1 k-1<br>A. 0.4 kj<br>B. 0.8 kj<br>C. 400 kj  |
| 9       | What is the heat required in Kilo joules when the temperature of 100 g of copper is raised thgough 20 K/. Specific heat capacity of copper is 0.4 x 10-3 kg -1 k-1  | B. W m-2 k-2 C. W m-3 k-1 D. J kg -1 k-1  A. 0.4 kj B. 0.8 kj C. 400 kj D. 800 kj  A. Thermodynamic temperature B. Freezing point C. Boiling point   |
| 9       | What is the heat required in Kilo joules when the temperature of 100 g of copper is raised thgough 20 K/. Specific heat capacity of copper is 0.4 x 10-3 kg -1 k-1  Which temperature is the absolute measure of temperature.   | B. W m-2 k-2 C. W m-3 k-1 D. J kg -1 k-1  A. 0.4 kj B. 0.8 kj C. 400 kj D. 800 kj  A. Thermodynamic temperature B. Freezing point C. Boiling point D. Absolute zero  A. 40 B40 C. 140  |
| 9 10 11 | What is the heat required in Kilo joules when the temperature of 100 g of copper is raised thgough 20 K/. Specific heat capacity of copper is 0.4 x 10-3 kg -1 k-1  Which temperature is the absolute measure of temperature.  The Fahrenheit and Kelvin scales intersect at  On which temperature scale a degree is 1/180 of the interval between the freezing point and | B. W m-2 k-2 C. W m-3 k-1 D. J kg -1 k-1  A. 0.4 kj B. 0.8 kj C. 400 kj D. 800 kj  A. Thermodynamic temperature B. Freezing point C. Boiling point D. Absolute zero  A. 40 B40 C. 140 D140  A. Celsius scale B. Fahrenheit scales C. Rankine scale |

| 14 | If volume of the gas doubled without changing its temperature the pressure of the gas is                    | A. Reduced to half of original value     B. Not changed     C. Reduced to one fourth of original value     D. Doubled  |
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| 15 | The efficiency of a diesel engine is about  | A. 15% to 35 5<br>B. 355 to 40%<br>C. 45% to 655<br>D. 505 to 65 %   |
| 16 | Efficiency of a Carnot engine can never be 1 or 100% unless cold reservoir is at absolute temperature.      | A. 0 K<br>B. 100 K<br>C. 273 K<br>D. 373 K   |
| 17 | Efficiency of a Carnot engine depends on  | A. Temperature B. Pressure C. Volume D. The nature of working substance  |
| 18 | Thermodynamics concern its primary with the   | A. Measurement of quantity of heat     B. Physical effects of temperature     changes     C. Conversion of heat into other     energy forms     D. Behavior of gases |
| 19 | What is the human body temperature in Celsius scale.  | A. 30 oc<br>B. 36. 9 oC<br>C. 98. 4 oC<br>D. 100 oC  |
| 20 | Which one of the following temperature scales is independent of the properties of any particular substance. | A. Kelvin scale     B. Gas scale     C. Thermodynamic scale     D. Celsius scale   |