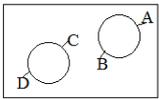




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# B.B.S. International School

## Daily Assignment Class : XI (Physics)

1. How many calories of heat are required for external work when one gram mole of a gas is heated by  $1^{\circ}\text{C}$  at constant pressure?
2. Two copper balls having masses 5 g and 10 g collide with a target with the same velocity. If the total energy is used in heating the balls. Which ball will attain higher temperature?
3. A sphere, a cube and a thin circular plate, all of same material and same mass are initially heated to same high temperature. Which will cool fastest?
4. A faulty thermometer has its fixed points marked as  $5^{\circ}$  and  $95^{\circ}$ . The temperature of a body as measured by the faulty thermometer is  $59^{\circ}$ . Find the correct temperature of the body on Celsius scale.
5. Two large holes are cut in a metal sheet. If the sheet is heated, how will the diameters of the holes change? 
6. How much should the temperature of a brass rod be increased so as to increase its length by 1%? Given  $\alpha$  for brass is  $0.00002/^{\circ}\text{C}$ .
7. Calculate difference in specific heats of 1 g of air at N.T.P. Given density of air at N.T.P. is 1.293 g/l,  $J = 4.2 \times 10^7$  erg/cal.
8. Distinguish between conduction, convection and radiation.
9. Assume that the thermal conductivity of copper is four times that of brass. Two rods of copper and brass of the same length, and cross-section are joined end to end. The free end of the copper rod is kept at  $0^{\circ}\text{C}$  and the free end of the brass rod  $100^{\circ}\text{C}$ . Calculate the temperature at the junction of the two rods at equilibrium. Ignore radiation losses.
10. (a) How much heat must be absorbed by ice of mass  $m = 720$  g at  $-10^{\circ}\text{C}$  to take liquid state at  $15^{\circ}\text{C}$ ?  
(b) If we supply the ice with a total energy of only 210 kJ (as heat), what then are the final state and temperature of the water?

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# B.B.S. International School

## Daily Assignment Class : XI (Economics)

1. When does 'increase' in supply take place?
2. State and discuss four characteristics of perfect competition.
3. There are large number of buyers in a perfectly competitive market. Explain the significance of this feature.
4. There are large number of sellers in a perfectly competitive market. Explain the significance of this feature.
5. In a perfectly competitive market, the buyers treat products of all the firms as homogeneous. Explain the significance of this feature.
6. Define Average Revenue. Show that Average Revenue and Price are same.
7. Giving reasons, state whether the following statements are true or false:
  - (a) When MR is zero, average revenue will be constant.
  - (b) MR is always equal to the price at which the last unit of commodity is sold.
  - (c) When TR is maximum, MR is also maximum.
8. A firm can sell more units of a good as it wants at a given price. Draw (a) TR curve (b) AR and MR curves of a firm. State the relationship between AR and MR curves in this case.
9. What is supply? Explain the effect of technological progress on supply of a good.
10. Explain the effect of technological changes on the supply of a commodity.

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