Multiple Choice Questions’ Bank:

1. Find the wrong statement: Specific heat of a material _____________.
   (a) Constant for a material   (b) Heat capacity per unit mass
   (c) Extrinsic property    (d) Has units as J/kg-K.

2. Heat capacity has units as
   (a) J/kg.K             (b) J/mol.K
   (c) J.ohm/sec.K²      (d) W/m.K

3. Units for thermal conductivity
   (a) J/kg.K             (b) J/mol.K
   (c) J.ohm/sec.K²      (d) W/m.K

4. Lorentz constant has units as
   (a) J/kg.K             (b) J/mol.K
   (c) J.ohm/sec.K²      (d) W/m.K

5. Thermal expansion of a material has units as
   (a) J/kg-K             (b) J/mol-K
   (c) J.ohm/sec.K²      (d) 1/°C

6. Polymers have thermal conductivities in the range of
   (a) < 1             (b) 1-10
   (c) 10-100         (d) >100

7. Polymers have thermal expansion coefficients in the range of _____x10⁻⁶.
   (a) 0.5-15        (b) 5-25
   (c) 25-50        (d) 50-400

8. Coefficient of thermal expansion for ceramics is the range of _____x10⁻⁶.
   (a) 0.5-15        (b) 5-25
   (c) 25-50        (d) 50-400

9. Metals have thermal conductivities in the range of
   (a) < 1             (b) 1-5
   (c) 5-25         (d) 20-400

10. Heat capacity of most materials is approximately equal to ________
    (a) R               (b) 2R
    (c) 3R           (d) R/2
11. With increase in temperature, thermal conductivity of a metal ____________.  
(a) Increases  (b) Decreases  (c) Either  (d) All, depending on metal.

12. Thermal conductivity in polymers increases with _______.  
(a) Increase in crystallinity  (b) Decrease in crystallinity  (c) Either  (d) None

Answers:

1. c  
2. b  
3. d  
4. c  
5. d  
6. a  
7. d  
8. a  
9. d  
10. c  
11. d  
12. a