WORKSHEET-46(CLASS-11)
TOPIC- THERMODYNAMICS
SUBTOPIC-PART-1

SUBJECT – CHEMISTRY
DURATION – 30 mins

F.M. - 15
DATE – 07.11.20

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1. The variations in enthalpy that cannot be detected per calorimeter can be detected with the aid of

   a. Newton's law
   b. Hess's law
   c. Krebs law
   d. Ohm's law

2. The energy required to sever a given covalent bond is named

   a. bond energy
   b. bond enthalpy
   c. bond dissociation energy
   d. all of above

3. Changes in enthalpy in an exothermic reaction is

   a. positive
   b. negative
   c. constant
   d. neutral

4. The first law of thermodynamics states that energy can't be-

   a. created only
   b. destroyed only
   c. converted
   d. created and destroyed

5. Hess's law states that a chemical reaction is independent of the route by which chemical reactions takes place while keeping the same

    a. initial conditions only
    b. final conditions only
    c. mid-conditions
    d. initial and final conditions

6. The standard enthalpy change of neutralization involves the reaction of an acid with an alkali to form 1 mol of

    a. water
    b. oxygen
    c. nitrogen
    d. anhydrous salt

7. The change in the energy between a chemical reaction and the surroundings at constant temperature is called

    a. enthalpy change
    b. enthalpy
    c. enthalpy profile
    d. dynamic enthalpy

8. To initiate a reaction the minimum energy which is required to break bonds is called

    a. bond energy
    b. activation energy
    c. breaking energy
    d. ionization energy

9. The standard condition for enthalpy changes are

    a. the pressure of 100 kPa
    b. temperature 298K
    c. normal physical state
    d. all of above

10. The application of law of thermodynamics to the enthalpy change was done by

    a. Newton
    b. Hess's
    c. Lewis
    d. Sophocles

11. Carnot cycle consists of-
  a.Two constant volume and two reversible adibatic processes
  b.Two isothermal and two reversible adibatic processes

c.Two constant pressure and two reversible adibatic processes
d.One constant volume,one constant pressure and two reversible adibatic processes

12. The amount of heat absorbed to evaporate 1 kg of water from its saturation temperature,without change of temperature, is called-
   a.Sensible heat of water
   b.Latent heat of vaporisation
   c.Enthalpy of steam
   d.Entropy of steam

13. Which of the following processes is used to do maximum work done on the ideal gas that is compressed to half of its initial volume?

   a. isothermal
   b. isochoric
   c. isobaric
   d. adiabatic

14. What is the ratio of Cp/Cv for gas if the pressure of the gas is proportional to the cube of its temperature and the process is an adiabatic process?

   a. 2
   b. 3/2
   c. 4/3
   d. 5/3

15. The coefficient performance of a refrigerator is 5. Calculate the heat rejected to the surrounding if the temperature inside the freezer is -20°C

   a. 11°C
   b. 41°C
   c. 21°C
   d. 31°C