Week 11 : Assignment 11

The due date for submitting this assignment has passed.

Due on 2021-10-13, 23:59 IST.

As per our records you have not submitted this assignment.

1) **A straight line in a semi-log plot (x axis to logarithmic, y axis linear) passes through point (x_1, y_1) and (x_2, y_2). The slope of the line, m is** 2 points

(A) $m = \frac{y_2 - y_1}{x_2 - x_1}$

(B) $m = \frac{y_2 - y_1}{\log \frac{x_2}{x_1}}$

(C) $m = \log \frac{(\frac{y_2}{y_1})}{(\frac{x_2}{x_1})}$

(D) $m = \frac{\log(y_2/y_1)}{x_2 - x_1}$

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
B)

2) **Identify the correct statement** 2 points

(A) Standard heat of formation of oxygen is = 0.
(B) Standard heat of formation of oxygen gas = 0.
(C) Standard heat of formation of oxygen gas at 25 °C & 1 atm pressure = 0.
(D) Standard heat of formation of oxygen is any form (solid / liquid / gas) at 25 °C and 1 atm pressure = 0.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
C)

3) **Identify the correct statement:** 2 points

(A) Formation reactions are always fake or pseudo reaction.
(B) Formation reactions are always true and takes place.
(C) Formation reactions are catalysis reactions.
(D) Formation reactions may be true or false (pseudo) reactions.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
D)

4) **In Endo thermic reaction,** 2 points

(A) Total Enthalpy of the products is lower than the total Enthalpy of the reactants.
(B) Total Enthalpy of the products is higher than the total Enthalpy of the reactants.
(C) The number of moles of products must be lower than the moles reactants.
(D) Heat of Formation of the products must be zero.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
B)

5) **The formation reaction of Hydrogen Peroxide (H_2O_2) is;** 2 points

(A) $BaO_2 \cdot 8H_2O$ (s) + H_2SO_4 (aq.) = $BaSO_4$ (s) + H_2O_2 (aq.) + $8H_2O$ (l)
(B) H_2O (l) + ½ O_2 (g) = H_2O_2 (l)
(C) H_2 (g) + O_2 (g) = H_2O_2 (l)
(D) $PbSO_4$ (s) + $4H_2O$ = PbS (s) + $4H_2O_2$ (l)

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
C)

6) **The heat of reaction when 1 mole of Ethyl Alcohol (EtOH) in liquid state is oxidized in Stochiometric amount of gaseous oxygen. The data given are** 2 points

$\Delta\hat{H}_f^\circ$, H_2O = – 68.317 KJ/gmol. °C
$\Delta\hat{H}_f^\circ$, CO_2 = – 393.51 KJ/gmol. °C
$\Delta\hat{H}_f^\circ$, EtOH = – 326.70 KJ/gmol. °C

(A) – 890.464 KJ
(B) – 990.464 KJ
(C) – 1317.164 KJ
(D) – 1643.864 KJ

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
B)

7) **Hess's law is particularly useful for;** 2 points

(A) Gaseous compounds
(B) Calculating Heat of formation for compounds with fake formation reaction
(C) Calculation Heat of formation for compounds with real formation reaction
(D) For calculating heat of mixing

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
B)

8) **Liquid dripping out from an automobile exhaust tube on a cold day due to;** 2 points

(A) Condensation of water vapor in the flue gas at low temp.
(B) Its due to water leakage from the air conditioner
(C) Its due to fuel leaking from the Engine.
(D) All the above reasons are possible.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
A)

9) **Given, Heat of Neutralization between NaOH (aq) and HCl (aq) is equal to – 13.360 Kcal. The heat of Neutralization between LiOH (aq) and H_2SO_4 (aq) is;** 2 points

(A) > – 13.360 Kcal
(B) ≤ – 13.360 Kcal
(C) ≈ – 13.360 Kcal
(D) Can't be determined based on the given data.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
C)

10) **Metathesis happens when;** 2 points

(A) A weak acid and a weak base is mixed
(B) Aqueous solution of a mixture of two salts, both of strong base and strong acid are slowly evaporated.
(C) Aqueous solution of a mixture of two salts, one salt of strong acid and strong base and another salt of weak acid and weak base are slowly evaporated.
(D) Aqueous solution of a mixture of one salt of strong acid & weak base and another salt of weak acid and strong base are slowly evaporated.

A)
B)
C)
D)

No, the answer is incorrect.
Score: 0
Accepted Answers:
B)