

01. CHEMICAL REACTIONS and EQUATIONS

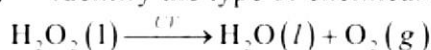
WORKSHEET 1

- (1.) Which statement is correct about the following reaction?



- (1) ZnO is being oxidized
 - (2) CO is being reduced
 - (3) CO₂ is being oxidized
 - (4) ZnO is being reduced
- (2.) Consider the following reaction :
- $$x\text{C}_2\text{H}_6(g) + y\text{O}_2(g) \rightarrow m\text{CO}_2(g) + n\text{H}_2\text{O}(l)$$
- Which of the following set of coefficients balanced the above redox reaction? x y m n
- (1) 1 3 2 2
 - (2) 2 7 4 6
 - (3) 2 3 2 2
 - (4) 1 7 2 3

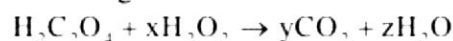
- (3.) Identify the type of chemical reaction.



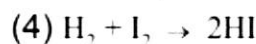
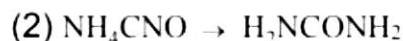
- (1) Neutralization reaction
 - (2) Combination reaction
 - (3) Decomposition reaction
 - (4) Double Displacement reaction
- (4.) Which of the given equations exhibit a combination reaction involving two compounds?
- (1) $2\text{CO} + \text{O}_2 \rightarrow 2\text{CO}_2$
 - (2) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
 - (3) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
 - (4) $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2$

- (5.) In the equation, $\text{Na}_2\text{CO}_3 + x\text{HCl} \rightarrow 2\text{NaCl} + \text{CO}_2 + \text{H}_2\text{O}$, the value of x is:
- (1) 1
 - (2) 2
 - (3) 3
 - (4) 4

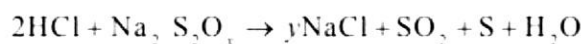
- (6.) What will be the value of x, y and z in following equation?



- (1) x = 1, y = 2, z = 2
 - (2) x = 2, y = 2, z = 2
 - (3) x = 2, y = 2, z = 1
 - (4) x = 1, y = 2, z = 4
- (7.) The main cause of rancidity in foods is:
- (1) bacteria
 - (2) proteins
 - (3) antioxidants
 - (4) oxidation of the fatty acid molecule
- (8.) Constituents of the compounds can be separated by
- (1) physical methods
 - (2) chemical reactions
 - (3) Both A and B
 - (4) None of A or B
- (9.) Which of the following oxide(s) of iron would be obtained on prolonged reaction of iron with steam?
- (1) FeO
 - (2) Fe₂O₃
 - (3) Fe₃O₄
 - (4) Fe₂O₃ and Fe₃O₄
- (10.) Which black substance is formed when silver is kept open for few days?
- (1) Silver sulphate
 - (2) Silver sulphide
 - (3) Silver sulphite
 - (4) Silver oxide
- (11.) Oxidation number of S in S²⁻ is
- (1) -2
 - (2) 0
 - (3) -6
 - (4) +6
- (12.) Which of the following is a decomposition reaction?



(13.)



Find the value of x and y .



(14.) A dilute solution of sodium carbonate was added to two test tubes – one containing dil HCl (A) and the other containing dilute NaOH (B). The correct observation was –

- (1) a brown coloured gas liberated in test tube A
- (2) a brown coloured gas liberated in test tube B
- (3) a colourless gas liberated in test tube A
- (4) a colourless gas liberated in test tube B

(15.) Which of the following is not a redox reaction

- (1) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- (2) $\text{O}_2 + 2\text{H}_2 \rightarrow 2\text{H}_2\text{O}$
- (3) $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \frac{1}{2}\text{H}_2$
- (4) $\text{MnCl}_3 \rightarrow \text{MnCl}_2 + \frac{1}{2}\text{Cl}_2$

(16.) Which of the following does not corrode when exposed to the atmosphere?

- (1) Iron (2) Copper
- (3) Gold (4) Silver

(17.) Assertion:-Lower parts of the ship or bridge is coated with tar.

Reason:-It is to increase rusting.

- (1) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

(2) Both Assertion and Reason are correct but Reason is not the correct explanation for Assertion

(3) Assertion is correct but Reason is incorrect

(4) Assertion is incorrect but Reason is correct

(18.) Hypochlorous acid decomposes to give hydrochloric acid and oxygen. What type of reaction takes place here?

- (1) Thermal decomposition
- (2) Electrolytic decomposition
- (3) Photolytic decomposition
- (4) None of these

(19.) Which of the following is/are a decomposition reaction(s)?

- (1) $2\text{HgO} \xrightarrow{\text{Heat}} 2\text{Hg} + \text{O}_2$
- (2) $\text{CaCO}_3 \xrightarrow{\text{Heat}} \text{CaO} + \text{CO}_2$
- (3) $2\text{H}_2\text{O} \xrightarrow{\text{Heat}} 2\text{H}_2 + \text{O}_2$
- (4) All of these

(20.) The oxidation number of Cr in $\text{Cr}(\text{CO})_6$ is

- (1) 0 (2) +2 (3) -2 (4) +6

ANSWER

<u>WORKSHEET 1</u>					
(1.)	4	(2.)	2	(3.)	3
(4.)	4	(5.)	2	(6.)	1
(7.)	4	(8.)	2	(9.)	3
(10.)	2	(11.)	1	(12.)	3
(13.)	1	(14.)	3	(15.)	1
(16.)	3	(17.)	3	(18.)	3
(19.)	4	(20.)	1		