**Karan Arora** **M:9416974837**

**I.P.S.Sr.Sec.School**

**Max Time : 1 hr** **Class : 10th Science Max Marks : 30**

**Unit Test CODE : A**

1. **Answer the following Multiple Choice Questions : [ 1 x 6 = 6 ]**
2. When crystals of ferrous sulphate are heated, they decompose to form

|  |  |
| --- | --- |
| a) FeO (s) and SO2 (g) | b) FeO (s) and SO3 (g) |
| c) Fe2O3 (s) , SO2 (g) and SO3 (s) | d) Fe2O3 (s) , SO2 (g) and SO3 (g) |

1. When crystals of lead nitrate are heated, they decompose to form

|  |  |
| --- | --- |
| a) Pb (s) and NO2 (g) | b) PbO (s) , NO2 (g) and O2 (g) |
| c) Pb (s) , NO2 (g) and O2 (g) | d) PbO (s) , NO (g) and NO2 (g) |

1. Which of the following is not a necessary condition for a decomposition reaction ?

|  |  |
| --- | --- |
| a) There is only one reactant | b) There are two or more than two products |
| c) Heating is always required | d) All the above conditions are necessary |

1. Which of the following is not a thermal decomposition reaction ?

|  |  |
| --- | --- |
| a) CaCO3 (s) → CaO (s) + CO2 (g) | b) 2 AgCl (s) → 2 Ag (s) + Cl2 (g) |
| c) 2 KClO3 (s) → 2 KCl (s) + 3 O2 (g) | d) 2 NaHCO3 (s) → Na2CO3 (s) + CO2 (g) + H2O (l) |

1. The following examples of decomposition reactions represent respectively

2 AgBr (s) → 2 Ag (s) + Br2 (g) ; 2 H2O (l) → 2 H2 (g) + O2 (g)

a) thermal decomposition , electrolytic decomposition

b) thermal decomposition , thermal decomposition

c) photodecomposition , electrolytic decomposition

d) photodecomposition , thermal decomposition

1. On electrolytic decomposition of water, the ratio of H2 and O2 gases collected is

|  |  |
| --- | --- |
| a) 1 : 1 | b) 1 : 2 |
| c) 2 : 1 | d) depends on amount of H2O taken |

1. Distinguish between real image and virtual image . **[ 2 ]**
2. Why is respiration considered as an exothermic reaction? Explain. **[ 2 ]**
3. Why is convex mirror used as a rear view mirror in vehicles? State any one reason. **[ 2 ]**
4. Explain the term lateral inversion. **[ 2 ]**
5. Classify the following reaction into different types : **[ 2 ]**

|  |  |
| --- | --- |
| a) AgNO3 (aq) + NaCl (aq) → AgCl (s) + NaNO3 (aq) | b) CaO (s) + H2O (l) → Ca(OH)2 (aq) |
| c) 2 KClO3 (s) 2 KCl (aq) + 3 O2 (g) | d) Zn + CuSO4 → ZnSO4  + Cu |

1. Draw the diagram of alimentary canal of man and label the following parts : Mouth , Oesophagus , stomach , Intestine **[ 3 ]**
2. Explain the digestion of carbohydrates in humans. **[ 3 ]**
3. Define Principal Focus and Focal length of concave mirror. **[ 3 ]**
4. Balance the following equation : **[ 1x 5 = 5 ]**

|  |  |  |
| --- | --- | --- |
| a) NH3 + O2 → N2 + H2O | b) CaC2 + H2O → Ca(OH)2 + C2H2 | c) Al + HCl → AlCl3 + H2 |
| d) Mg + CO2 MgO + C | e) CS2 + O2 → CO2 + SO2 |  |

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**Max Time : 1 hr** **Class : 10th Science Max Marks : 30**

**Unit Test CODE : B**

1. **Answer the following Multiple Choice Questions : [ 1 x 6 = 6 ]**
2. On electrolytic decomposition of water, the ratio of H2 and O2 gases collected is

|  |  |
| --- | --- |
| a) 1 : 1 | b) 1 : 2 |
| c) 2 : 1 | d) depends on amount of H2O taken |

1. Which of the following is not a necessary condition for a decomposition reaction ?

|  |  |
| --- | --- |
| a) There is only one reactant | b) There are two or more than two products |
| c) Heating is always required | d) All the above conditions are necessary |

1. When crystals of lead nitrate are heated, they decompose to form

|  |  |
| --- | --- |
| a) Pb (s) and NO2 (g) | b) PbO (s) , NO2 (g) and O2 (g) |
| c) Pb (s) , NO2 (g) and O2 (g) | d) PbO (s) , NO (g) and NO2 (g) |

1. The following examples of decomposition reactions represent respectively

2 AgBr (s) → 2 Ag (s) + Br2 (g) ; 2 H2O (l) → 2 H2 (g) + O2 (g)

a) thermal decomposition , electrolytic decomposition

b) thermal decomposition , thermal decomposition

c) photodecomposition , electrolytic decomposition

d) photodecomposition , thermal decomposition

1. When crystals of ferrous sulphate are heated, they decompose to form

|  |  |
| --- | --- |
| a) FeO (s) and SO2 (g) | b) FeO (s) and SO3 (g) |
| c) Fe2O3 (s) , SO2 (g) and SO3 (s) | d) Fe2O3 (s) , SO2 (g) and SO3 (g) |

1. Which of the following is not a thermal decomposition reaction ?

|  |  |
| --- | --- |
| a) CaCO3 (s) → CaO (s) + CO2 (g) | b) 2 AgCl (s) → 2 Ag (s) + Cl2 (g) |
| c) 2 KClO3 (s) → 2 KCl (s) + 3 O2 (g) | d) 2 NaHCO3 (s) → Na2CO3 (s) + CO2 (g) + H2O (l) |

1. Explain the term lateral inversion. **[ 2 ]**
2. Classify the following reaction into different types : **[ 2 ]**

|  |  |
| --- | --- |
| a) AgNO3 (aq) + NaCl (aq) → AgCl (s) + NaNO3 (aq) | b) CaO (s) + H2O (l) → Ca(OH)2 (aq) |
| c) 2 KClO3 (s) 2 KCl (aq) + 3 O2 (g) | d) Zn + CuSO4 → ZnSO4  + Cu |

1. Why is convex mirror used as a rear view mirror in vehicles? State any one reason. **[ 2 ]**
2. Why is respiration considered as an exothermic reaction? Explain. **[ 2 ]**
3. Distinguish between real image and virtual image . **[ 2 ]**
4. Define Principal Focus and Focal length of concave mirror. **[ 3 ]**
5. Draw the diagram of alimentary canal of man and label the following parts : Mouth , Oesophagus , stomach , Intestine **[ 3 ]**
6. Explain the digestion of carbohydrates in humans. **[ 3 ]**
7. Balance the following equation : **[ 1x 5 = 5 ]**

|  |  |  |
| --- | --- | --- |
| a) CS2 + O2 → CO2 + SO2 | b) Mg + CO2 MgO + C | c) CaC2 + H2O → Ca(OH)2 + C2H2 |
| d) NH3 + O2 → N2 + H2O | e) Al + HCl → AlCl3 + H2 |  |