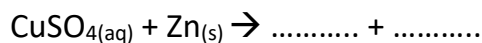


Grade	Institute	Day	Time	Starting Date
10	Channa Asela Institute, Mt. Lavinia	Saturday	02.30pm – 05.30pm	5 <sup>th</sup> September
10	Shakthi Institute, Colombo 04	Friday	02.30pm – 04.30pm	4 <sup>th</sup> September
10	Shakthi Institute, Waterfront, Colombo 2	Tuesday	02.30am – 04.30pm	8 <sup>th</sup> September
11	Channa Asela Institute, Mt. Lavinia	Saturday	10.30am – 01.30pm	5 <sup>th</sup> September
11	Shakthi Institute, Colombo 04	Monday	02.30pm – 04.30pm	7 <sup>th</sup> September
11	Shakthi Institute, Waterfront, Colombo 2	Wednesday	02.30pm – 04.30pm	2 <sup>nd</sup> September
Past Paper	Channa Asela Institute, Mt. Lavinia	Saturday	06.00pm – 08.00pm	5 <sup>th</sup> September
Past Paper	Shakthi Institute, Colombo 04	Monday	04.45pm – 6.45pm	7 <sup>th</sup> September
Past Paper	Shakthi Institute, Waterfront, Colombo 2	Wednesday	0.4.45pm – 06.45pm	2 <sup>nd</sup> September

**Reaction of metals with solutions of metallic salts**

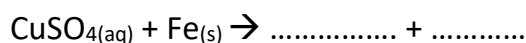
- 1) The ..... of a salt can be replaced by a ..... reactive ..... The ..... of the salt will be displaced.
- 2)  $\text{CuSO}_4$  is made up of ..... metal and .....
- 3) ..... is more reactive than .....
- 4) Therefore when ..... is added to a ..... solution, ..... will displace ..... and form .....



- 5)  $\text{CuSO}_{4(\text{aq})}$  solution is ..... colour.
- 6) Zn is ..... colour.
- 7)  $\text{ZnSO}_{4(\text{aq})}$  is .....
- 8) Cu is .....
- 9) Therefore the observations when ..... is added to ..... solution.
  - \* ..... colour solution will become .....
  - \* ..... colour Zn will .....
  - \* A ..... substance will precipitate

**Write the observations when Fe is added to a  $\text{CuSO}_4$  solution.**

- 1)  $\text{CuSO}_4$  is made up of ..... metal and .....
- 2) ..... is more reactive than .....
- 3) Therefore when ..... is added to a ..... solution, ..... will displace ..... and form .....



5)  $\text{CuSO}_{4(\text{aq})}$  solution is .....

6) Fe is .....

7)  $\text{FeSO}_{4(\text{aq})}$  is .....

8) Cu is .....

9) Therefore the observations when ..... is added to ..... solution.

\* ..... colour solution will become .....

\* ..... colour ..... will dissolve

\* ..... substance will precipitate

**Write the observations when Cu is added to a  $\text{ZnSO}_4$  solution.**

1)  $\text{ZnSO}_4$  is made up of ..... metal and .....

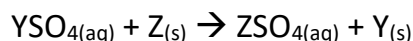
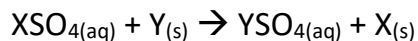
2) ..... is less reactive than .....

3) Therefore when ..... is added to a ..... solution, ..... will not be displaced by .....

4) Therefore the Colourless ..... will remain .....

5) Reddish brown ..... will remain without getting .....

6)  $\text{ZnSO}_{4(\text{aq})} + \text{Cu}_{(\text{s})} \rightarrow \dots + \dots$  (No reaction)

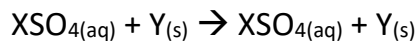
**Question 1**

- Arrange X, Y, & Z metals according to the descending order of their reactivity.

..... > .....

..... > .....

Therefore ..... > ..... > .....

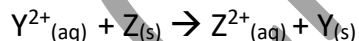
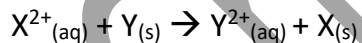
**Question 2**

Arrange X, Y, & Z metals according to the descending order of their reactivity.

..... > .....

..... > .....

Therefore ..... > ..... > .....

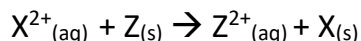
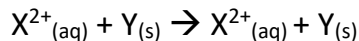
**Question 3**

Arrange X, Y, & Z metals according to the descending order of their reactivity.

..... > .....

..... > .....

Therefore ..... > ..... > .....

**Question 3**

Arrange X, Y, & Z metals according to the descending order of their reactivity.

..... > .....

..... > .....

Therefore ..... > ..... > .....

**Types of reactions**

- 1) Combination reactions
- 2) Decomposition reactions
- 3) Single displacement reactions
- 4) Double displacement reaction

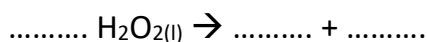
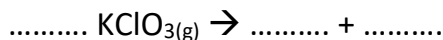
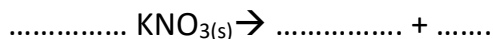
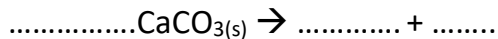
**Combination reactions**

**A + B → .....**

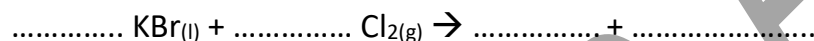
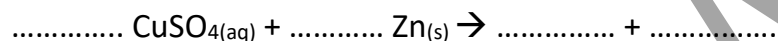


**Decomposition reactions**

AB → .....

**Single displacement reactions**

AB + C → .....

**Double displacement reactions**

AB + CD → .....

**Extraction of iron**

1. Iron is found in iron ores as .....(Fe<sub>2</sub>O<sub>3</sub>)
2. .... is reduced by ..... gas.
3. Iron is extracted in in a .....
4. Raw materials are inserted into the ..... from the .....
5. The raw materials used in iron extraction are
  - (i) ..... – Fe<sub>2</sub>O<sub>3</sub>

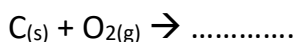
(ii) ..... – C

(iii) ..... – CaCO<sub>3</sub>

6. .... is blown into the blast furnace from .....

7. The ..... inside the blast furnace will be .....°C - .....°C

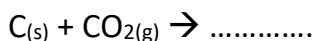
8. .... reacts with ..... in air and produce .....



9. .... (CaCO<sub>3</sub>) decomposes into ..... and .....



10. .... (C) reacts with ..... and produce .....



11) .... (Fe<sub>2</sub>O<sub>3</sub>) reacts with ..... and produces .....and .....



12) Therefore ..... (Fe<sub>2</sub>O<sub>3</sub>) was reduced by .....

13) Adding oxygen is called an ..... reaction

14) Removing oxygen is called a ..... reaction

15) Therefore ..... was reduced into ..... and .....was oxidised into .....

16) Iron ore contain two impurities

(i) ..... – SiO<sub>2</sub>

(ii) ..... – Al<sub>2</sub>O<sub>3</sub>

17) The ..... produced during the decomposition of ..... will react with ..... and .....

18) ..... reacts with ..... and produce .....

..... + .....  $\rightarrow$  .....

19) ..... reacts with .....and produce .....

$\text{CaO}_{(s)} + \text{Al}_2\text{O}_{3(s)} \rightarrow$  .....

20) ..... and .....get together and produce .....

21) Therefore ..... contains .....and  $\text{CaAl}_2\text{O}_2$  .....

22) The density of ..... is less than the density of .....

23) Therefore ..... floats on the .....

24) Therefore the extracted ..... will not react with ..... in the .....

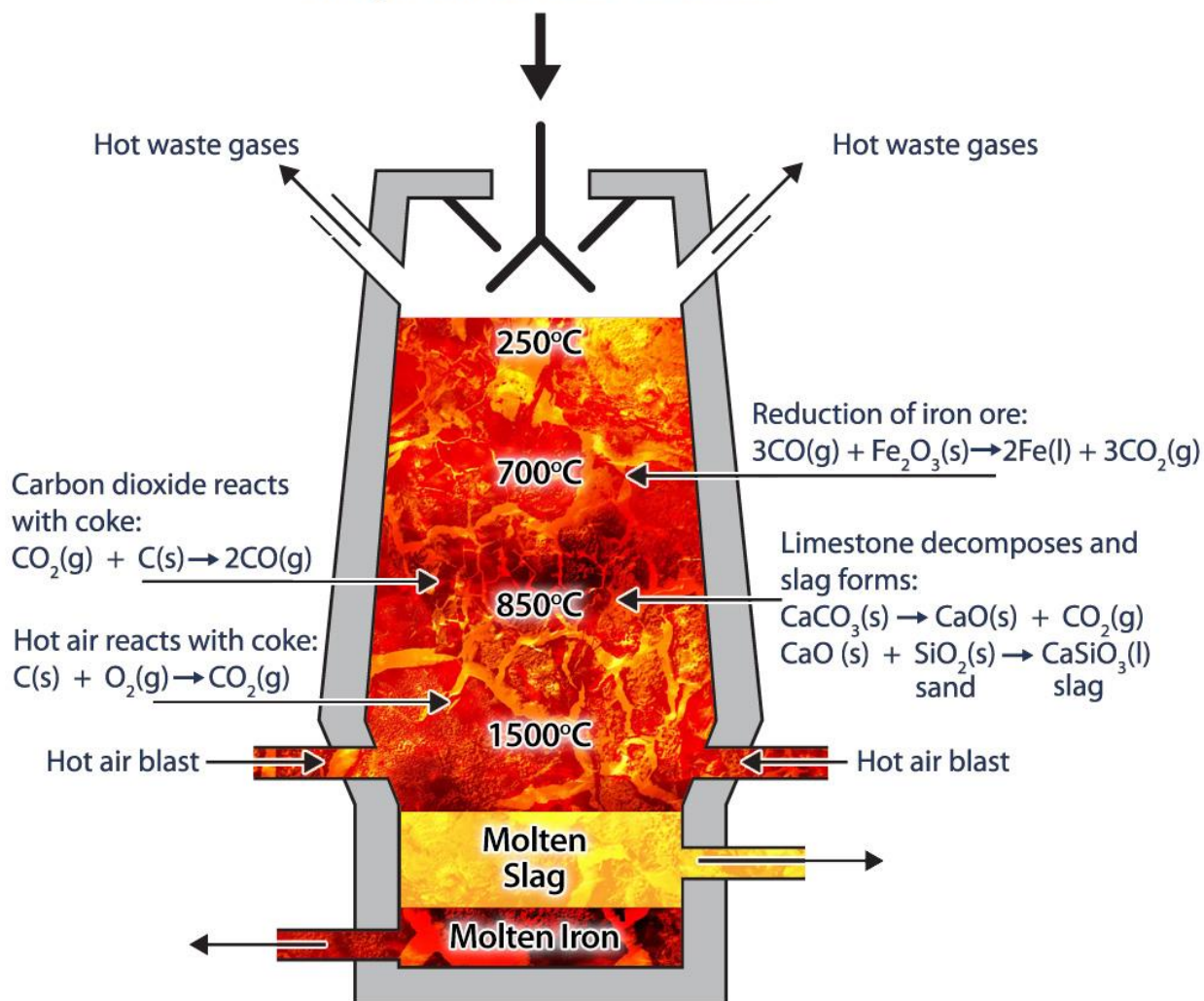
25) Therefore the extracted ..... will not become ..... again.

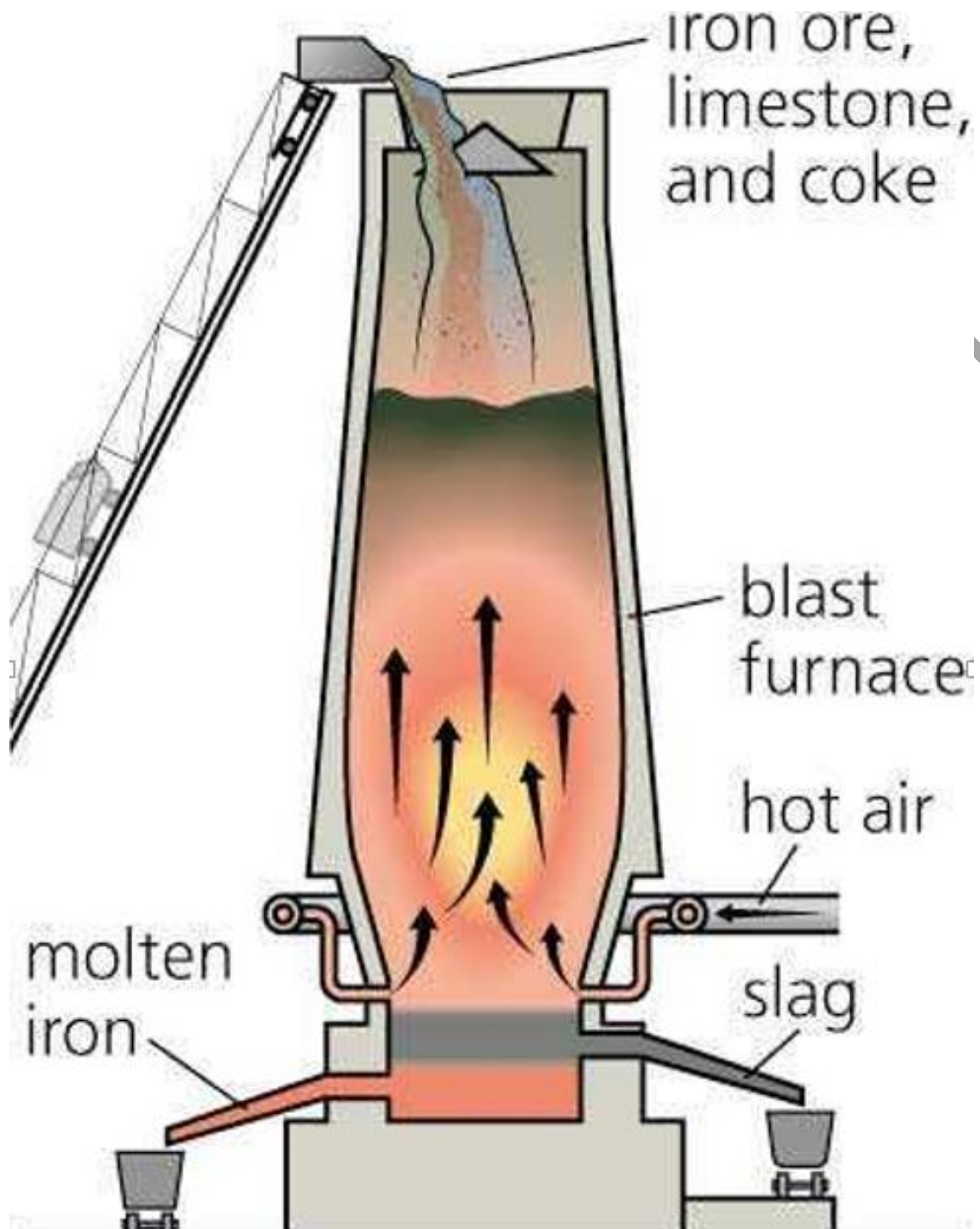
Channa Asela

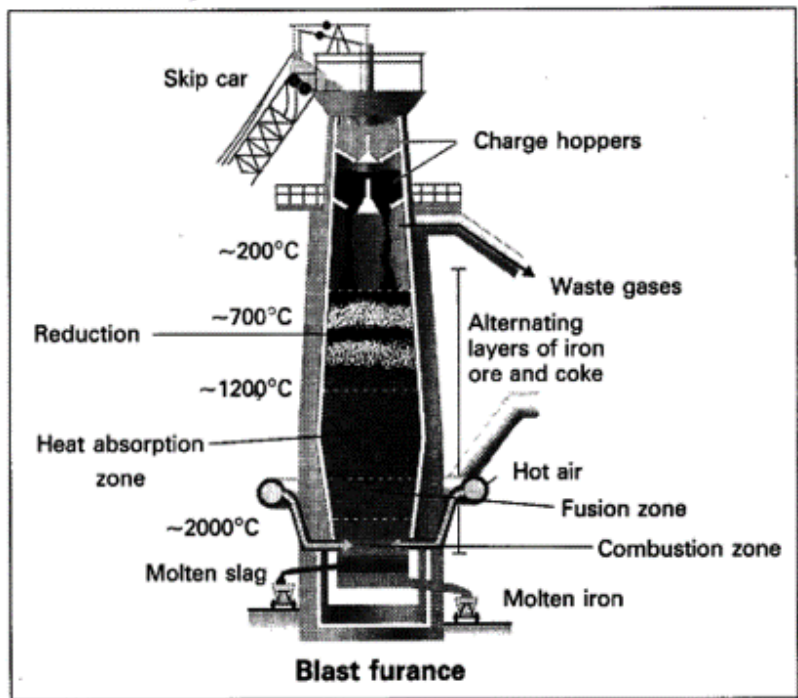


## The Blast Furnace

Charge: iron ore, coke, limestone







Channa