

CHEMISTRY

BOOKS - PSEB

Chemical Reactions and Equations

Exercise

1. Which of the statements about reactions

below are incorrect?

 $2PbO(s)+C(S)
ightarrow 2Pb(s)+CO_2(g)$ (a)

Lead is getting reduced. (b) Carbon dioxide is getting oxidised. (c) Carbon is getting oxidised. (d) Lead oxide is getting reduced.

- A. a)and b)
- B. a) and c)
- C. a), b)and c)
- D. all

Answer:



2. $Fe2O3 + 2Al \rightarrow Al2O3 + 2Fe$

The aobve reaction an example

A. combination reaction

B. double displacement reaction

C. decomposition reaction

D. displacement reaction

Answer:



- **3.** What happens when dilute hydrochloric acid is added to iron filings? Tick the correct answer
 - A. Hydrogen gas and iron chloride are produced
 - B. chlorine gas and iron hydroxide are produced
 - C. No reaction takes place
 - D. Iron salt and wter are produced

Answer:



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4. What is a balanced chemical equation? Why should chemical equations be balanced?



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5. Translate the following statements into chemical equations and then balance them:



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6. Translate the following statements into chemical equations and then balance them:



7. Translate the following statements into chemical equations and then balance them:



8. Translate the following statements into chemical equations and then balance them:



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9. Balance the following chemical equations:

$$HNO_3 + Ca(OH)_2
ightarrow Ca(NO_3)2 + H_2O$$



10. Balance the following chemical equations:

$$NaOH + H_2SO_4 + H_2O$$



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11. Balance the following chemical equations:

$$NaCl + AgNO_3 \rightarrow AgCl + NaNO_3$$



12. Balance the following chemical equations:

$$BaCl_2 + H_2SO_4
ightarrow BaSO_4 + HCl$$



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13. Write balanced chemical equations for the following reaction- a) calcium hydroxide + carbon dioxide \rightarrow calcium carbonte + water



14. Write balanced chemical equations for the following reaction- zink+ silver nitrate \rightarrow zink nitrate+silver



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15. Write balanced chemical equations for the following reaction- aluminium+ copper chloride \rightarrow aluminium chloride + copper



16. Write balanced chemical equations for the following reaction- barium chloride+ potassium sulphate \rightarrow barium sulphate +potassium sulphate



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17. Write the balanced chemical equation for the following reaction and identify the type of reaction

Potassium bromide (aq) +Barium iodide (aq)

→ Potassium iodide (aq)+Barium bromide

(s)



18. Write the balanced chemical equation for the following reaction and identify the type of reaction . Zinc carbonate (s) \rightarrow Zinc oxide (s)+Carbon dioxide



19. Write the balanced chemical equation for the following reaction and identify the type of reaction. Hydogen (g)+Chlorine(g) \rightarrow Hydrogen chloride(g)



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20. Write the balanced chemical equation for the following reaction and identify the type of reaction . Magnesium (s)+Hydrochloric

acid(aq) \rightarrow Magnesium chloride (aq)+Hydrogen(g)



21. What is meant by exothermic and endothermic reaction? Give examples



22. Why is respiration considered as an exothermic reaction?explain



23. Why are decompositon reactions called opposite of combination reactions?write equations for these reactions



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24. Write one equation each for decomposition reactions where energy is supplied in the from of heat, light or electricity

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25. What is the difference between the displacement and double displacement reaction write equation for these reations



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26. In the refining of silver, the recovery of silver from silver nitrate solution involved displacement by copper metal. Write down the reaction involved



27. What do you mean by precipitation reaction?explain by giving examples



28. Explain the following in terms of gain or loss of oxygen with two examples each: oxidation and reduction



29. Explain the following in terms of gain or loss of oxygen with two examples each: oxidation and reduction



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30. A shiny brown coloured element x on heating in air becomes black in colour name the element x and the blacked coloured compound formed



31. Why do we apply paint on iron articles?



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32. Oil and fat containing food items are flushed with nitrogen why?



33. Explain the following term with one example: Corrosion



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34. Explain the following term with one example: Rancidity.

