



CHEMISTRY

BOOKS - MODERN PUBLICATION

METALS AND NON-METALS

Example

1. Which of the following element has maximum electron gain enthalpy(negative)? *F, Cl, Br, I.*



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2. Which of the following element has maximum electron gain enthalpy(negative)? *F, Cl, Br, I.*



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3. Which of the following element has maximum electron gain enthalpy(negative)? *F, Cl, Br, I.*



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4. The electronic configuration of some elements are given below:

Elements are given below :

Element	Electronic configuration		
	K	L	M
A	2	8	7
B	2	8	1
C	2	8	8
D	2	2	
E	1		

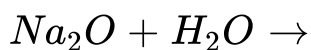
Which of these are metals?

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5. Balance the following equation : $\text{Na} + \text{O}_2 \rightarrow \text{Na}_2\text{O}$

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6. Complete and balance the following equations:





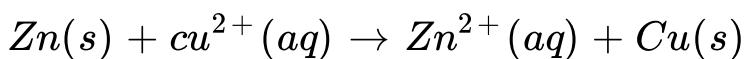
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7. Complete and balance the following equations:



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8. Consider the following reactions:

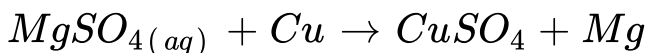
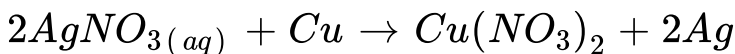
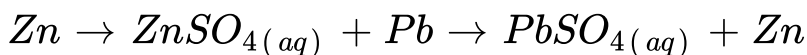
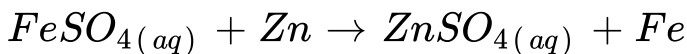
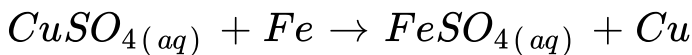


With reference to the above reaction which one of the following is correct statement:



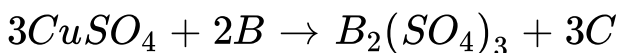
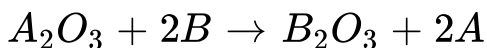
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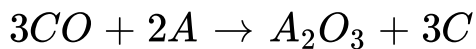
9. Which of the following displacement reaction cannot occur?



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10. A, B and C are three elements which undergo chemical changes according to following equations:

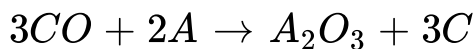
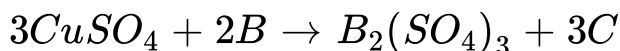
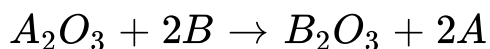




Which of these is least reactive.

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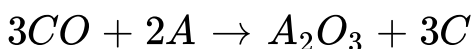
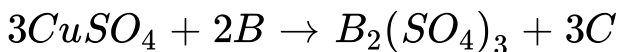
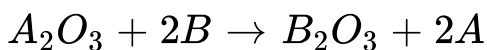
11. A, B and C are three elements which undergo chemical changes according to following equations:



Which of these is least reactive.

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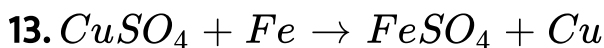
12. A, B and C are three elements which undergo chemical changes according to following equations:



Which of these is least reactive.



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$FeSO_4 + Zn \rightarrow ZnSO_4 + Fe$ br> On the basis of the

above reactions, indicate which is the most reactive and

which is the least reactive metal out of zinc , copper and

iron?

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14. Give one example of metal which is liquid at room temperature

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15. Give an example of a metal which can be easily cut with a knife.

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16. Name a metal which is best conductor of heat.

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17. Give an example of a metal which: is a poor conductor of heat

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18. Give an example of a metal which used in electrical appliances.

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19. Give an example of a metal which combines with oxygen at room temperature.

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20. Write equation for the reactions of :

iron with steam

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21. Write equations for the reactions of :calcium and potassium with water.

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22. Write equations for the reactions of :calcium and potassium with water.

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23. Name two metals which will displace hydrogen from dilute acids, and two metals which will not

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24. The substances which allow the passage of electricity through them.....

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25. Name a metal which can melt even in your hand. To which group of the periodic table does it belong?

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26. Name any two neutral oxides.

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27. Name one non-metal and one metal which are in liquid state at room temperature.

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28. What type of oxides are formed when non-metals combine with oxygen?

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29. What are strategic metals? Give one example also.

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30. State the reason for the following behaviour of zinc metal:

On placing a piece of zinc metal in a solution of mercuric chloride it acquires a shining silvery surface but when it is placed in a solution of magnesium sulphate no change is observed.

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31. What are amphoteric oxides? give two examples of amphoteric oxides?

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32. When a strip of copper is placed in the solution of silver nitrate, the solution become blue. Why ?

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33. When a strip of copper is placed in the solution of silver nitrate, the solution become blue. Why ?

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34. Write the electron dot structure for sodium and chlorine atoms. How do these form a chemical bond? Name the type of bond so formed. Why does compound so formed has high melting point?

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35. Show formation of K_2O and MgO by transfer of electrons.

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36. Name the solvent in which ionic compounds are generally soluble.



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37. Why are aqueous solutions of ionic compounds able to conduct electricity?



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38. Name two metals which are found in nature the free state.



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39. Name an oxide ore of a aluminium and carbonate ore of zinc.



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40. Explain, why carbon can reduce copper but not calcium oxide to calcium?



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41. Write one constituent of each of brass and bronze that is not common to both.



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42. What would happen to iron railings on the roadside if they are not painted? Why does it happen so?



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43. Explain the following : Why is the tungsten used almost exclusively for filament of electric lamps?



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44. Most jewellery is made of 22 carat gold. What is the percentage of gold in it?



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45. Why is iron more useful when it is mixed with a little carbon?



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46. Explain why surface of some metals acquired a dull appearance when exposed to air for a long time.



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47. Alloys are used in electrical heating devices rather than pure metals. Give one reason.



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48. A metal M occurs in the earth's crusts as its oxide. An alloy of this metal is used in making air crafts.

Name the metal.

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49. A metal M occurs in the earth's crusts as its oxide. An alloy of this metal is used in making air crafts.

Name the metal.

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50. A metal M occurs in the earth's crusts as its oxide. An alloy of this metal is used in making air crafts.

Name the metal.

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51. Name a reducing agent that may be used to obtain manganese from manganese dioxide.

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52. Give one example of metal which is liquid at room temperature

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53. Give an example of a metal which can be easily cut with a knife.

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54. Name a metal which is best conductor of heat.



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55. Give an example of a metal which: is a poor conductor of heat



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56. Explain the meaning of malleable and ductile



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57. Why is sodium kept immersed in kerosene oil?

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58. Write equation for the reactions of :

iron with steam

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59. Write equations for the reactions of :calcium and potassium with water.

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60. Which gas is produced when dilute hydrochloric acid is added to a reactive metal ? Write the chemical reaction when iron reacts with dilute H_2SO_4 .

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61. What would you observe when zinc is added to a solution of iron sulphate? Write the chemical reaction that takes place.

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62. Write the electron-dot structures for sodium, Oxygen and magnesium.

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63. Show the formation of Na_2O and MgO by the transfer of electrons.

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64. $NaCl$, MgO What are the ions present in these compounds ?

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65. Why do ionic compounds have high melting points?

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66. Define the terms: mineral



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67. Define the terms: ore



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68. Define the term.

Gangue



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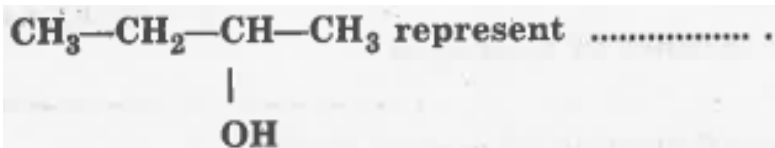
69. Name two metals which are found in nature the free state.

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70. What chemical process is used for obtaining a metal from its oxide?

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71. Fill in the blanks:



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72. Which metals do not corrode easily?



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73. What are alloys?



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74. Samples of four metals A,B,C and D were taken and added to the following solution one by one. The results obtained have been tabulated as follows.

Metal	Iron (II) sulphate	Copper (II) sulphate	Zinc sulphate	Silver nitrate
A	No reaction	Displacement		
B	Displacement	No reaction		
C	No reaction	No reaction	No reaction	Displacement
D	No reaction	No reaction	No reaction	No reaction

Use the table above to answer the question about metals

A, B, C

and D: Which is the most reactive metal ?

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75. Samples of four metals A,B,C and D were taken and added to the following solution one by one. The results obtained have been tabulated as follows.

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D	No reaction	No reaction	No reaction	No reaction

Use the table above to answer the question about metals

A, B, C

and D: Which is the most reactive metal ?

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Metal	Iron (II) sulphate	Copper (II) sulphate	Zinc sulphate	Silver nitrate
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B	Displacement	No reaction		
C	No reaction	No reaction	No reaction	Displacement
D	No reaction	No reaction	No reaction	No reaction

Use the table above to answer the question about metals

A, B, C

and D: Which is the most reactive metal ?



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77. Which of the following pairs will give displacement reactions:

A. NaCl solution and copper metal

B. $MgCl_2$ solution and an aluminium metal

C. $FeSO_4$ solution and silver metal.

D. $AgNO_3$ solution and copper metal

Answer:

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78. Which of the following methods is suitable for preventing an iron frying pan from rusting:

A. Applying grease

B. Applying paint

C. Applying a coating of zinc

D. All of the above

Answer:



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79. An element reacts with oxygen to give a compound with a high melting point. This compound is also soluble in water. The element is likely to be:

A. calcium

B. carbon

C. silicon

D. iron

Answer:



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80. Food cans are coated with tin and not with zinc because:

- A. zinc is costlier than tin
- B. zinc has higher melting point than tin
- C. zinc is more reactive than tin
- D. zinc is less reactive than tin.

Answer:



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81. You are given a hammer, a battery, a bulb ,wires and a switch How could you use them distinguish between samples of metals and non-metals?

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82. You are given a hammer, a battery, a bulb ,wires and a switch How could you use them distinguish between samples of metals and non-metals?

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83. What are amphoteric oxides? give two examples of amphoteric oxides?



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84. Name two metals which will displace hydrogen from dilute acids, and two metals which will not



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85. In the electrolytic refining a metal M what would you take as the anode, cathode and electrolyte?



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86. Pratyush took sulphur powder on a spatula and heated it. he collected the gas evolved by inverting a test

tube over it as shown in figure.

what will be the action of gas on.

dry litmus paper.

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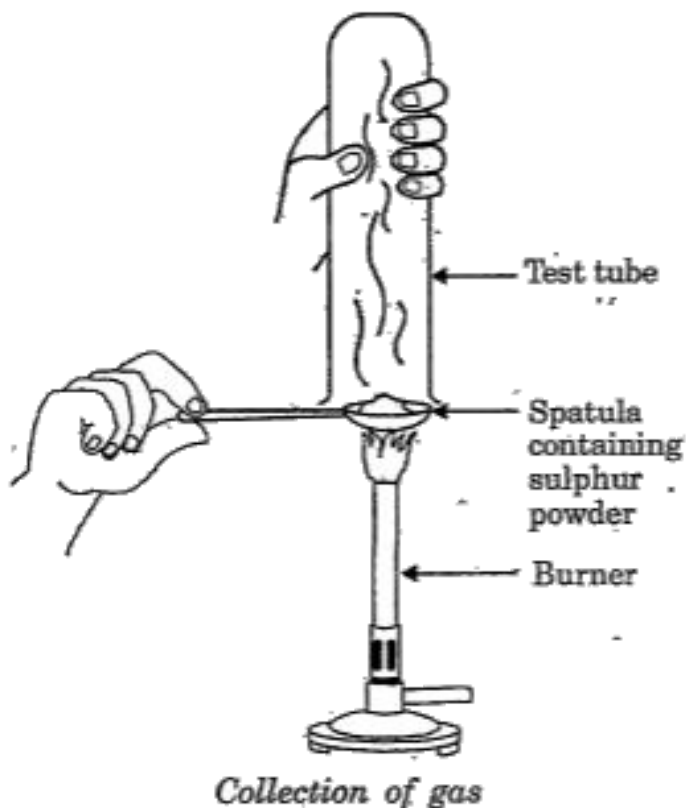
87. Pratyush took sulphur powder on a spatula and heated it. he collected the gas evolved by inverting a test tube over it as shown in figure.

what is action of gas on moist litmus paper.

write a balanced chemical equation for the reaction taking place

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88. Pratyush took sulphur powder on a spatula and heated it. He collected the gas evolved by inverting a test tube over it, as shown in the figure below:



Write a balanced chemical equation for reaction taking place.



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89. State two ways to prevent the rusting of iron

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90. What type of oxides are formed when non-metals combine with oxygen?

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91. Give reasons: Platinum, gold and silver are used to make jewellery

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92. Give reasons: sodium, potassium and lithium are stored under oil.

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93. Give reasons: aluminium is highly reactive metal, yet it is used to make utensils for cooking.

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94. Give reasons: Carbonate and sulphide ores are usually converted into oxides during the process of extraction

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95. You must have seen tarnished copper vessels being cleaned with lemon or tamarind juice. explain why these sour substances are effective in cleaning the vessels.

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96. Differentiate between metals and non-metals on the basis of their chemical properties

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97. A man went door to door posing as a goldsmith he promised to bring back the glitter of old and dull gold ornaments an unsuspecting lady gave a set of gold

bangles to him which he dipped in a particular solution the bangles sparkled like new but their weight was reduced drastically the lady was upset but after a futile argument the man beat a hasty retreat can you play the detective to find out the nature of the solution he had used?



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98. Give the reason why copper is used to make hot water tanks but steel (an alloy of iron) is not.



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99. Iqbal treated a lustrous, divalent element M with sodium hydroxide. He observed the formation of bubbles in reaction mixture. He made the same observations when this element was treated with hydrochloric acid. Suggest how can he identify the produced gas. write the chemical equations for both the reactions.

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100. Electrolytic refining is used to purify which of the following metals ?

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101. Electrolytic refining of metals is used to get metals of very high purity.



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102. Electrolytic refining of metals is used to get metals of very high purity.



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103. Give reasons: Carbonate and sulphide ores are usually converted into oxides during the process of extraction



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104. When alkyl halides are treated with Ag_2O they give

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105. Compound X and aluminium are used to join railway tracks.

Identify the compound X?

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106. Compound X and aluminium are used to join railway tracks.

Name the reaction.

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107. Compound X and aluminium are used to join railway tracks.

Write down its reaction.



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108. When a metal X is treated with cold water, it gives a basic salt Y with molecular formula XOH (Molecular mass=40) and liberates a gas Z which easily catches fire. Identify X, Y and Z and also write the reaction involved.



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109. A non-metal x, exists in two forms Y and Z. Y is the hardest substance and Z is a GOOD conductor of electricity what are X,Y and Z?

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110. The following reaction takes place when aluminium powder is heated with MnO_2



Is aluminium getting reduced?

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111. The following reaction takes place when aluminium powder is heated with MnO_2



Is MnO_2 getting oxidised?



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112. What are the constituents of solder alloy? Which property of solder makes it suitable for welding electrical wires?



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113. A metal, A which is used in thermite process, when heated with oxygen gives an oxide B, which is amphoteric in nature. Identify A and B. write down the reactions of oxide B with HCl and NaOH.

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114. A metal that exists as a liquid at room temperature is obtained by heating its sulphide in the presence of air. Identify the metals and its ore and give the reaction involved.

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115. Give the formulae of the stable binary compounds that would be formed by the combination of following pairs of elements:

Mg and Nitrogen?

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116. Give the formulae of the stable binary compounds that would be formed by the combination of following pairs of elements:

Li and Oxygen?

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117. Give the formulae of the stable binary compounds that would be formed by the combination of following pairs of elements:

Al and chlorine?

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118. Give the formulae of the stable binary compounds that would be formed by the combination of following pairs of elements:

K and O_2 ?

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119. What happens when

$ZnCO_3$ is heated in the absence of oxygen?



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120. What happens when

a mixture of Cu_2O and Cu_2S is heated?



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121. A non-metal A is an important constituent of our food and forms two oxides B and C. Oxide B is toxic whereas C causes global warming.

Identify A, B and C?



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122. A non-metal A is an important constituent of our food and forms two oxides B and C. Oxide B is toxic whereas C causes global warming.

To which group of Periodic table does A belong?



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123. Give two examples each of the metals that are good conductors and poor conductors of heat respectively.



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124. Name one metal and non-metal that exist in liquid state at room temperature. Also name two metals having melting point less than 310K ($37^{\circ}C$).



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125. An element A reacts with water to form a compound B which is used in white washing. The compound B on heating forms an oxide C which on treatment with water gives back B. identify A, B and C and give the reactions involved.



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126. An alkali metal A gives a compound B on reacting with water. The compound B gives a soluble compound C on treatment with aluminium oxide. Identify A,B and C and give the reactions involved.

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127. Give the reactions involved during extraction of zinc from its ore by
roasting of zinc ore?

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128. Give the reactions involved during extraction of zinc from its ore by calcination of zinc ore.

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129. A metal M does not liberate hydrogen from acids but reacts with oxygen to give a black coloured product. Identify M and black coloured product and also explain the reaction M with oxygen.

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130. An element M forms an oxide M_2O_3 . Which is acidic in nature. State whether the element M is a metal or a non-metal.

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131. A solution of $CuSO_4$ was kept in an iron pot. After a few days the iron pot was found to have a number of holes in it. Explain the reasons in terms of reactivity. Write the equations of the reaction involved.

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132. A non-metal A which is the largest constituent of air, when heated with H_2 in 1:3 ratio in the presence of catalyst gives a gas B. on heating with O_2 it gives an oxide C. If this oxide is passed into water in the presence of air it gives an acid D which acts as a strong oxidising agent. Identify A,B,C and D.

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133. A non-metal A which is the largest constituent of air, when heated with H_2 in 1:3 ratio in the presence of catalyst gives a gas B. on heating with O_2 it gives an oxide C. If this oxide is passed into water in the presence of air it gives an acid D which acts as a strong oxidising agent.

To which group of periodic table does this non-metal belong?

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134. Give the steps involvd in the extraction of metals of low and medium reactivity from their respective sulphide ores.

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135. Explain the following:

Reactivity of Al decreases if it is dipped in HNO_3 .

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136. Explain the following:

Carbon cannot reduce the oxides of Na and Mg.



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137. Explain the following:

NaCl is not a conductor of electricity in solid state whereas it does conduct electricity in aqueous solution as well as in molten state.



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138. Explain the following:

Metals like Na, K, Ca and Mg are never found in their free

state in nature.

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139. Explain the following:

Iron articles are galvanised.

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140. Write the reaction involved

Roasting of copper (I) sulphide.

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141. Write the reaction involved

Reduction of copper oxide with copper sulphide.

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142. Write a short note on electrolytic refining of copper.

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143. Draw a neat and labelled diagram for zone refining of metals.

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144. Of the three metals X,Y and Z, X reacts with cold water, Y with hot water and Z with steam only. Identify X,Y and Z also arrange them in order of increasing reactivity.

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145. An element A burns with golden flame in air. It reacts with another element B, atomic number 17 to give a product C. An aqueous solution of product C on electrolysis gives a compound D and liberates hydrogen. Identify A,B,C or D. Also write down the equations for the reaction involved.

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146. Two ores A and B were taken. On heating, ore A gives CO_2 whereas, ore B gives SO_2 . What steps will you take to convert them into metals?



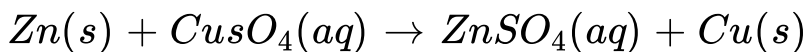
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147. A student has been collecting silver coins and copper coins. One day he observed a black coating on silver coins and a green coating on copper coins. Which chemical phenomenon is responsible for these coatings. Write the chemical name of black and green coatings.



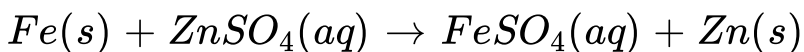
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148. State which of the following chemical reactions will take place or not. Giving suitable reason for each:



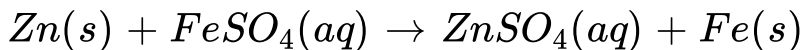
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149. State which of the following chemical reactions will take place or not. Giving suitable reason for each:



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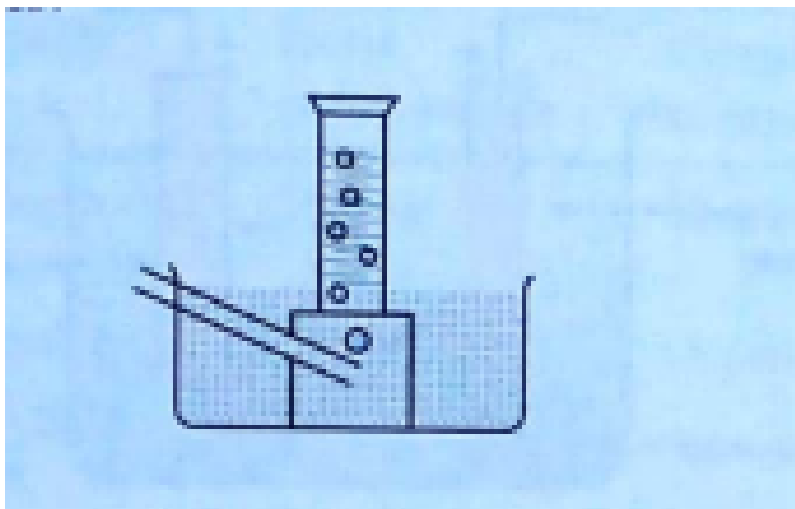
150. State which of the following chemical reactions will take place or not. Giving suitable reason for each:



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151. A metal is treated with dilute sulphuric acid. The gas is collected by the method shown in figure ahead. Answer the following:

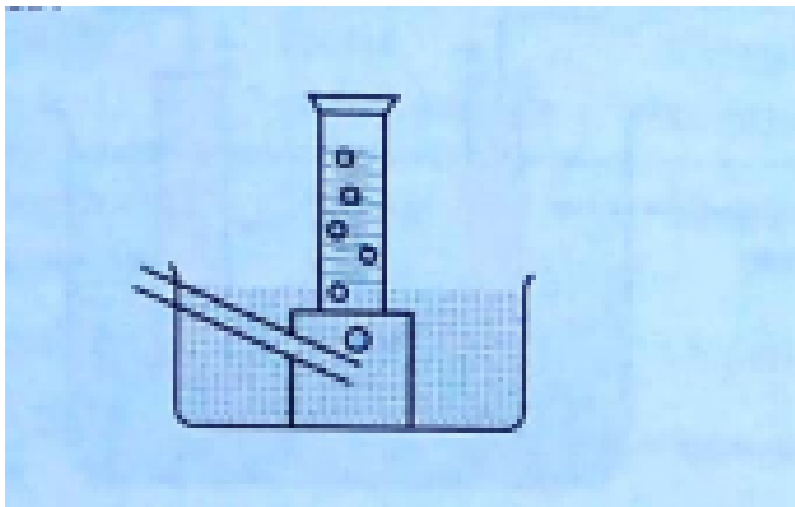
Name the gas.



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152. A metal is treated with dilute sulphuric acid. The gas is collected by the method shown in figure ahead. Answer the following:

Name the gas.

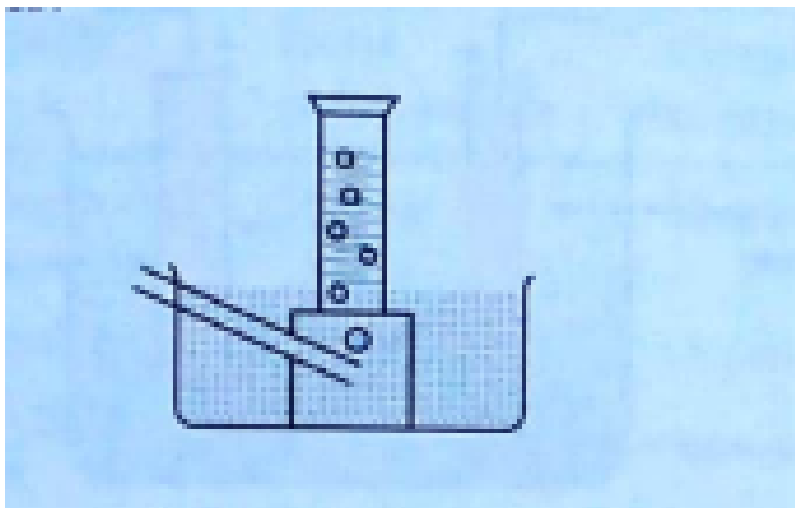


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153. A metal is treated with dilute sulphuric acid. The gas is collected by the method shown in figure ahead. Answer

the following:

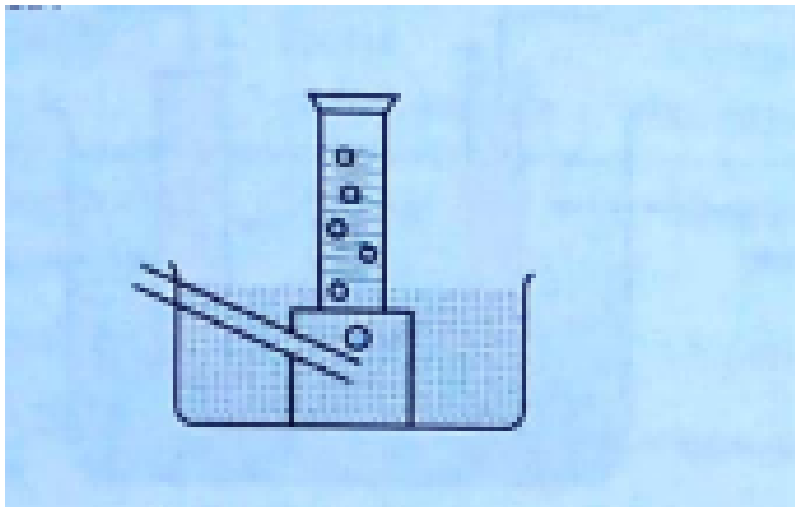
Name the method of collection of the gas.



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154. A metal is treated with dilute sulphuric acid. The gas is collected by the method shown in figure ahead. Answer the following:

Name the method of collection of the gas.



[▶ Watch Video Solution](#)

155. From amongst the metals sodium, calcium, aluminium, copper, and magnesium, name the metal which reacts with water only on boiling?

[▶ Watch Video Solution](#)

156. From amongst the metals sodium, calcium, aluminium, copper, and magnesium, name the metal another metal which does not react even with steam.

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157. Show the formation of Na_2O and MgO by the transfer of electrons.

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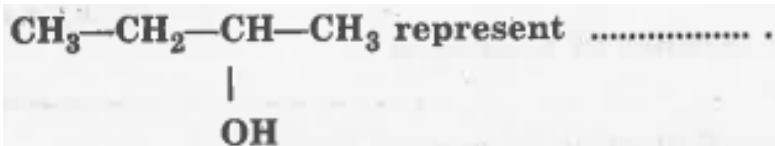
158. Why are ionic compounds usually hard?

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159. Why do ionic solids conduct electricity in aqueous solutions but not in the solid state ?

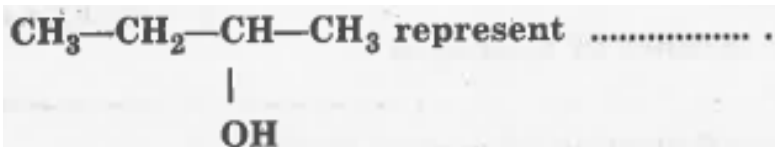
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160. Fill in the blanks:

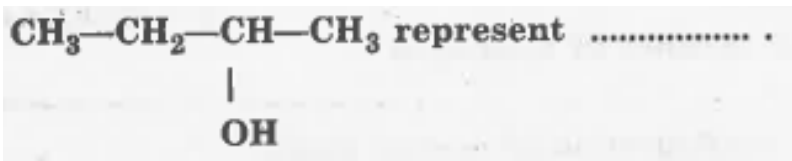


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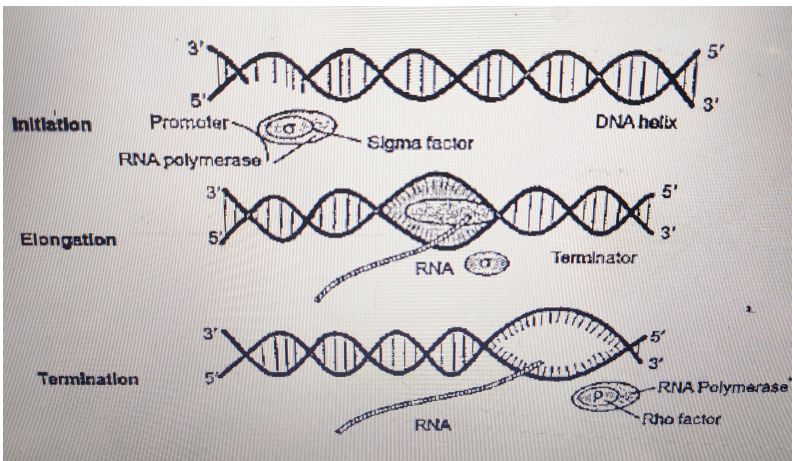
161. Fill in the blanks:



162. Fill in the blanks:



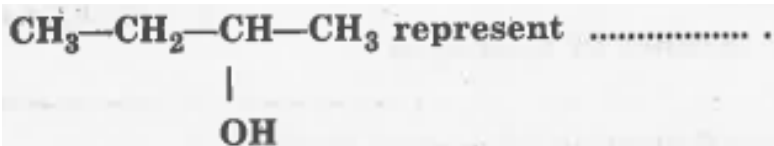
163. Identify (a),(b) and (c)





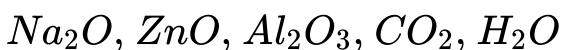
Watch Video Solution

164. Fill in the blanks:



Watch Video Solution

165. What are amphoteric oxides? Choose the amphoteric oxides from amongst the following oxides:



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166. Why is it that non-metals do not displace hydrogen from dilute acids?

 [Watch Video Solution](#)

167. Name two metals which react violently with cold water. Write any three observations you would make when such a metal is dropped into water. How would you identify the gas evolved if any, during the reaction?

 [Watch Video Solution](#)

168. Name a metal for each case.

It does not react with cold as well as hot water but reacts

with steam.

 [Watch Video Solution](#)

169. Name a metal for each case.

It does not react with any physical state of water.

 [Watch Video Solution](#)

170. When calcium metals is added to water, the gas evolved does not catch fire but the same gas evolved on adding sodium metals to water catches fire. Why is it so?

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171. What is an a.c. generator? With the help of a labelled diagram, explain the construction and working of an a.c. generator.

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172. What is meant by a leaf?

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173. An ore on heating in air produces sulphur dioxide. Which process would you suggest for its concentration? Describe briefly any two steps involved in the conversion of this concentrated ore into related metal.

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[Watch Video Solution](#)

174. Distinguish between ionic and covalent compounds under the following properties:

strength of forces between constituent elements.



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175. Distinguish between ionic and covalent compounds under the following properties:

solubility of compounds in water.



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176. Explain how the following metals are obtained from their compounds by the reducton process:

Metal M is in the middle of the reactivity series.

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177. Agar-agar is obtained from the following

 [Watch Video Solution](#)

178. Distinguish between roasting and calcination. Which of these two is used for sulphide ores and why?

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179. Write a chemical equations illustrates the use of aluminium for joining cracked railway lines.

 [Watch Video Solution](#)

180. Name the anode, the cathode and the electrolyte used in the electrolytic refining of impure copper.

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181. Zinc metal can displace copper from copper sulphate solution but copper metal can not displace zinc from the solution of zinc sulphate give reason.

 [Watch Video Solution](#)

182. Which process is used for the enrichment of sulphide ore. explain in brief two steps involved in the extraction of metal from enriched sulphide ore



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183. Give an example of a metal which:
is kept immersed in kerosene for storing.



Watch Video Solution

184. Name two metals which are both malleable and ductile.



[Watch Video Solution](#)

185. Name a metal which is best conductor of heat.



[Watch Video Solution](#)

186. Describe the electrolysis of water with the help of a labelled diagram.



[Watch Video Solution](#)

187. Name the pollen producing part of the flower? Explain with the help of a well labelled diagram?



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[Watch Video Solution](#)

188. Describe the electrolysis of water with the help of a labelled diagram.



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189. Write the names and symbols of two most reactive metals belonging to group I of the periodic table. Explain by drawing electronic structure how either one of the two metals reacts with halogen. With which name is the bond formed between these elements known and what is the class of the compound so formed known? state any four physical properties of such compounds.



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190. Name the method used for refining of Zirconium.

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191. Surface of some metals lose their brightness when kept in air for a long time. Why?

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192. The atomic number of sodium is 11, fluorine is 9 and neon is 10. Why are sodium and fluorine very reactive while neon shows almost no reactivity.

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193. Melting and boiling points of ionic compounds are high.

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194. Aluminium is more reactive than iron, yet there is less corrosion of aluminium when both are exposed to air.

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195. T/F Solder is used for welding electrical wires together.

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 [Watch Video Solution](#)

196. T/F A sulphide ore is converted into its oxide to extract the metal.

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197. T/F Tarnished copper vessels are cleaned with tamarind juice.

 [Watch Video Solution](#)

198. How will you extract metals which are low in the reactivity series?





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199. Explain how the following metals are obtained from their compounds by the reducton process:

Metal M is in the middle of the reactivity series.



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200. Explain how the following metals are obtained from their compounds by the reducton process:

Metal M is in the middle of the reactivity series.



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201. In the electrolytic refining a metal M what would you take as the anode, cathode and electrolyte?

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202. Which one of the following four metals would be displaced from the solution of its salt by other three metals?

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203. The electronic configurations of two elements A and B are 2,8,1 and 2,8,7.

Identify the type of compound that will be formed by reactions of two elements. Explain its formation.

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204. State any two properties of the compound.

 [Watch Video Solution](#)

205. Name the method used for refining of Nickel.

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206. Silver articles and copper articles get a black and green coating respectively when kept for a long time in air. Mentions the reason for this and identify the chemical name of the coating in each case.

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207. State two ways to prevent the rusting of iron

 [Watch Video Solution](#)

208. How do the properties of iron changes when nickel and chromium are mixed with it.

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209. When a metal X is treated with cold water, it gives a basic salt Y with molecular formula XOH (Molecular mass=40) and liberates a gas Z which easily catches fire. Identify X,Y and Z and also write the reaction involved.

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210. Fill appropriate terms in the blank. The first steps involved in metallurgy are:
.....of ore.

 [Watch Video Solution](#)

211. fill appropriate terms in the blacks. The step involved in metallurgy are:

Conversion of ore into its..... .



Watch Video Solution

212. fill appropriate terms in the blacks. The step involved in metallurgy are:

Reduction of oxides of ores into..... .



Watch Video Solution

213. Fill appropriate terms in the blank. The first steps involved in metallurgy are:

.....of ore.



Watch Video Solution

214. Name the method used for refining of Nickel.



Watch Video Solution

215. Name the method used for refining of Nickel.



Watch Video Solution

216. Name the method used for refining of Nickel.



Watch Video Solution

217. Explain liquation process for the refining of metals.

 [Watch Video Solution](#)

218. How is copper obtained from Cu_2S ? Give reactions.

 [Watch Video Solution](#)

219. T/F Sodium metal is kept immersed in kerosene.

 [Watch Video Solution](#)

220. T/F Blue colour of copper sulphate solution disappears when some aluminium powder is added in it.

 [Watch Video Solution](#)

221. Define corrosion of metals?

 [Watch Video Solution](#)

222. What is corrosion of iron called?

 [Watch Video Solution](#)

223. How will you recognise the corrosion of silver?



Watch Video Solution

224. Why corrosion of iron is a serious problem?



Watch Video Solution

225. How can we prevent corrosion?



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226. You are provided with a container made up of aluminium. You are also provided with solutions of dil HCl, dil HNO_3 , $ZnCl_2$ and H_2O . Out of these solutions which solution, can be kept in the aluminium container? Name the type of reactions takes place.

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227. Give reasons for the following:

School bells are made up of metals.

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228. Give reasons for the following:

Electrical wires are made up of copper.



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229. A compound Z is formed by the transfer of electrons from a metal X to a non-metal Y. Identify the type of bond formed in the compound. List three general properties of the compounds formed by such type of bonds.



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230. If a copper plate remains immersed in silver nitrate solution for some time then what happens? write the

ionic equation for the reaction

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231. The wires carrying current in homes have a coating of PVC. Why?

 [Watch Video Solution](#)

232. Name a metal which does not stick to glass.

 [Watch Video Solution](#)

233. Name a metal which is commonly used in thermite welding.

 [Watch Video Solution](#)

234. What is the nature of zinc oxide?

 [Watch Video Solution](#)

235. Define the term magnetic moment.

 [Watch Video Solution](#)

236. Name the objects made from plastic.

 [Watch Video Solution](#)

237. Write a short note on electrolytic refining of copper.

 [Watch Video Solution](#)

238. List four important properties of aluminium which are responsible for its great demand in industry.

 [Watch Video Solution](#)

239. Write the electron dot structure of magnesium and chlorine and show the formation of magnesium chloride by transfer of electrons.

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240. State the property utilized in the following:
Graphite in making electrodes.

 [Watch Video Solution](#)

241. State the property utilized in the following:

Electric wires are coated with polyvinyl chloride or a rubber like material.



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242. Metal alloys are used for making bells and strings of musical instruments.



[Watch Video Solution](#)

243. Explain general properties of ionic compounds



[Watch Video Solution](#)

244. List any two metals found in free state in earth's crust. Where are they located in activity series?



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245. Derived units can be obtained from the ____ units.

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246. Differentiate between the following with suitable examples:

mineral and ore.

 [Watch Video Solution](#)

247. Differentiate between the following with suitable examples:

corrosion and rancidity.



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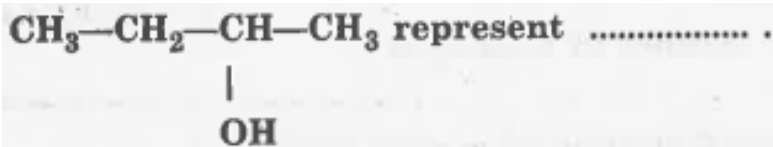
248. Explain the following with suitable examples

Molality?



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249. Fill in the blanks:



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250. Differentiate roasting and calcination



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251. Give reasons for the following:

Why do aluminum sheets not corrode easily?



[Watch Video Solution](#)

252. Give reasons for the following:

Why is copper vessel covered with a green coating in rainy season?



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253. State conditions under which the following metals react with water. Give equations for each reaction:

Na?

 [Watch Video Solution](#)

254. State conditions under which the following metals react with water. Give equations for each reaction:

Mg?

 [Watch Video Solution](#)

255. State conditions under which the following metals react with water. Give equations for each reaction:

Fe?

 [Watch Video Solution](#)

256. What type of ores are calcined? Illustrate giving a suitable example.

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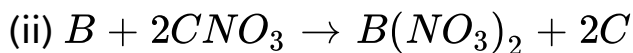
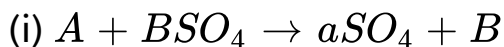
257. In what form is the calcined ore obtained and how can it be reduced? Give chemical equations of the reduction process involved for the example given to you .

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258. Name the metal used as a reducing agent in aluminothermic process.

 [Watch Video Solution](#)

259. Consider the following reactions :



Arrange the metals A,B,C in the decreasing order of reactivity.

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260. Discuss the reaction for the preparation of cumene.

How can it be converted into phenol ? Write the chemical

equations.

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261. An element 'A' reacts with oxygen to form an oxide of the formula A_2O which dissolves in dil. HCl. The oxide formed turns red litmus paper blue.

Is the element a metal or a non-metal?

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262. An element 'A' reacts with oxygen to form an oxide of the formula A_2O which dissolves in dil. HCl. The oxide formed turns red litmus paper blue.

Write the formula of A_2O and its reaction with dil. HCl.



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263. A metal M has the electronic configuration 2,8,3. It occurs in nature as M_2O_3 . Answer the following questions:

Name the metal and its ore.



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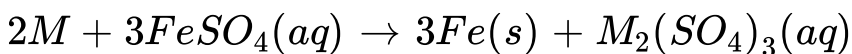
264. Answer the following question- Is bronze a metal?



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265. A metal M has the electronic configuration 2,8,3. It occurs in nature as M_2O_3 . Answer the following questions:

Will the following reaction occur or not?



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266. The table shows properties of elements:

Element	m.p. (°C)	b.p. (°C)	Conduct electricity	Reaction with water
A	-8	59	no	soluble
B	64	760	yes	violent
C	98	892	yes	fast
D	113	445	no	insoluble
E	186	986	yes	only on heating

Which element is a liquid at room temperature?

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267. The table shows properties of elements:

Element	m.p. (°C)	b.p. (°C)	Conduct electricity	Reaction with water
A	- 8	59	no	soluble
B	64	760	yes	violent
C	98	892	yes	fast
D	113	445	no	insoluble
E	186	986	yes	only on heating

Which of these are non-metals?

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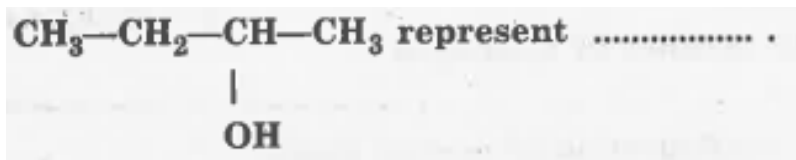
270. The table shows properties of elements:

Element	m.p. (°C)	b.p. (°C)	Conduct electricity	Reaction with water
A	-8	59	no	soluble
B	64	760	yes	violent
C	98	892	yes	fast
D	113	445	no	insoluble
E	186	986	yes	only on heating

Name the most reactive metal in the table.

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271. Fill in the blanks:



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272. Samples of 5 metals: A,B,C,D and E were added to following solutions one by one. The results are recorded below:

Metal	CuSO_4	AgNO_3	FeSO_4	ZnSO_4	$\text{Al}_2(\text{SO}_4)_3$	MgSO_4
A	Coating	Coating	—	No change	No change	No change
B	No change	No change	No change	No change	No change	No change
C	Brown coating	Coating	Coating	—	No change	No change
D	—	Coating	No change	No change	No change	No change
E	No Change	—	No change	No change	No change	No change

Which is least reactive metal?



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273. A solution of CuSO_4 was kept in an iron pot. After a few days the iron pot was found to have a number of holes in it. Explain the reasons in terms of reactivity. Write the equations of the reaction involved.



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274. A solution of $CuSO_4$ was kept in an iron pot. After a few days the iron pot was found to have a number of holes in it. Explain the reasons in terms of reactivity. Write the equations of the reaction involved.

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275. Reena's grandmother usually complained feeling of burning or acidity in the stomach after over eating. As a student of science, how do you analyse this symptom and what remedial method can you suggest?

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276. During summer season, a milkman usually adds a very small amount of baking soda to fresh milk. Give one reasons.



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277. Rani's mother made a cake using baking soda. She found that the cake is bitter in taste and is hard and small in size. As a student of science, what suggestion would rani give to her mother for making fluffy and soft cake?



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278. "Excessive eating of chocolates and sweets damage the teeth of small children." As a student of science what suggestion do you make to prevent tooth decay in small children.



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279. Manu's mother always purchased a knife made up of stainless steel instead of iron through stainless steel knife is very costly. How do you justify her choice?



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280. Oceans are vast store of energy" justify this statement

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281. Concrete has been most widely used as a building material. It is reinforced by rods which make it hard and stronger. However, it has been noticed that some old buildings are showing signs of weakness and cracks. As a student of chemistry how would you analyse this shocking situation? is there any method to protect these buildings from further damage?

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Exercise

1. List two metals which are easy to cut .

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2. what happen when a piece of zinc is added to copper sulphate solution?

 [Watch Video Solution](#)

3. Name two amphoteric oxide

 [Watch Video Solution](#)

4. Name one non-metal and one metal which are in liquid state at room temperature.

 [Watch Video Solution](#)

5. Which is more metallic: sodium or aluminium?

 [Watch Video Solution](#)

6. What can be seen when strip of copper metal is placed in a solution of silver nitrate?

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7. Zinc displaces copper from a solution of CuSO_4 because zinc is than Copper

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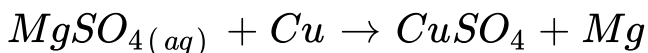
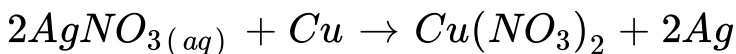
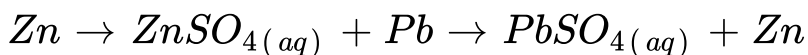
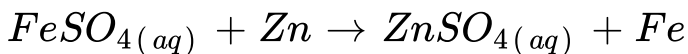
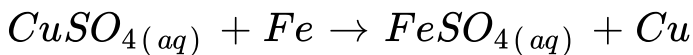
8. Magnesium liberatesgas on reacting with boiling water.

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9. The white powder formed when magnesium ribbon burns in oxygen it forms

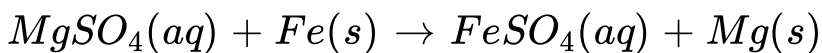
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10. Which of the following displacement reaction cannot occur?



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11. Is following reactions will occurs?explain:



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12. Give chemical equations to show that:

hydrogen gas is passed over heated calcium oxide.

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13. Give the reactions when red hot iron reacts with steam

 [Watch Video Solution](#)

14. Give chemical equations to show that:

sodium oxide reacts with water.

 [Watch Video Solution](#)

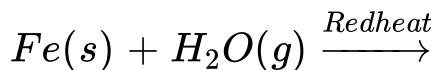
15. Name two metals which are lighter than water.

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16. Which metal is used in Fittig reaction ?

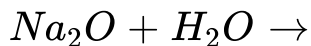
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17. Complete the following equations:



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18. Complete and balance the following equations:



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19. Complete the following equations:



 [Watch Video Solution](#)

20. Complete the following equations:



 [Watch Video Solution](#)

21. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

?

A. Mg

B. Cu

C. Au

D. Ag

Answer:



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22. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

Ag

Cu

Al

pt



Watch Video Solution

23. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

Ag

Cu

Al

pt



Watch Video Solution

24. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

Ag

Cu

Al

pt



Watch Video Solution

25. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

Ag

Cu

Al

pt



Watch Video Solution

26. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

Ag

Cu

Al

pt



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27. Iron occupies.....position than magnesium in the activity series. (lower/higher)



[Watch Video Solution](#)

28. An element having electronic configuration 2,8,1 is.....reactive than the one having electronic configuration 2,8,3.(more/less)



[Watch Video Solution](#)

29. Sodium is.....reactive than copper (less/more) because it occup[ies.....position in the reactivity series. (higher/lower)

 [Watch Video Solution](#)

30. The most common physical state of metals at room temperature is.....(solid/liquid)

 [Watch Video Solution](#)

31. A metal occupying higher position in the activity series.....displace other metals lying below it from their solution.(can/cannot)



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32. Name the metal which is best conductor of electricity?



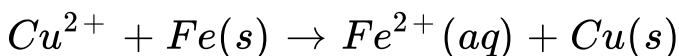
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33. Which of the following is a poor conductor of electricity?



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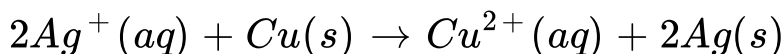
34. From the following displacement reactions, predict which is the most reactive metal?





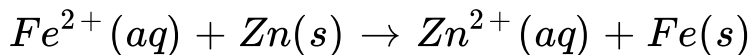
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35. From the following displacement reactions, predict which is the most reactive metal?



[Watch Video Solution](#)

36. From the following displacement reactions, predict which is the most reactive metal?



[Watch Video Solution](#)

37. What is the nature of metal oxides?

 [Watch Video Solution](#)

38. What is the nature of non-metal oxide?

 [Watch Video Solution](#)

39. Name two metals which are both malleable and ductile.

 [Watch Video Solution](#)

40. Name one metal more reactive than hydrogen and one less reactive metal than hydrogen?

 [Watch Video Solution](#)

41. In nature, metal A is found in free state while metal B is found in the form of its compounds. Which of these two metals will be near the top of the reactivity series?

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42. Which of the following elements would yield a basic oxide?

S,P,Ca,Si

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43. Name two metals which react with hydrogen

 [Watch Video Solution](#)

44. Graphite is a good conductor of electricity because

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45. Name one non metal which is lustrous?

 [Watch Video Solution](#)

46. Name one non-metal and one metal which are in liquid state at room temperature.

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47. Classify the following elements into metals and non-metals?

Potassium, sulphur, diamond and argon.

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48. An element X has the electronic configuration 2,8,8,2.

ON the basis of electronic configuration,

Does this element form acidic or basic oxide?

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49. An element X has the electronic configuration 2,8,8,2.

ON the basis of electronic configuration,

Is it expected to be malleable and ductile or not?

 [Watch Video Solution](#)

50. An element X has the electronic configuration 2,8,8,2.

ON the basis of electronic configuration,

Will this element displace hydrogen from dilute acids?

 [Watch Video Solution](#)

51. An element X has the electronic configuration 2,8,8,2.

ON the basis of electronic configuration,

Is the element expected to be good conductor of electricity or not?



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52. Write the names of two oxides which are neither acidic nor basic?



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53. What type of oxides are formed when non-metals combine with oxygen?



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54. Which of the following elements would give acidic oxide?

K,P,Na or H



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55. An element M forms an oxide M_2O_3 . Which is acidic in nature. State whether the element M is a metal or a non-metal.



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56. Which reducing agent is used for the reduction of alumina?

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57. Which process is used for the enrichment of sulphide ore. explain in brief two steps involved in the extraction of metal from enriched sulphide ore

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58. What chemical process is used for obtaining a metal from its oxide?

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59. What chemical process is used for obtaining a metal from its oxide?

 [Watch Video Solution](#)

60. The most abundant element in the earth's crust is:

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61. Fill ups

The minerals from which metals are produced economically are called..... .

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[Watch Video Solution](#)

62. Fill ups

The process involvd in the production of a metal from the ore are collectively known as..... .

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63. For the reduction of a metallic oxide, suggest a reducing agent cheaper than aluminium.

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64. Which of the following ores are concentrated by froth floatation ?



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65. Give the name of one metal each occurring as: carbonate.



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66. Give the name of one metal each occurring as: oxide?



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67. Give the name of one metal each occurring as:
sulphide?

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68. Give the name of one metal each occurring as:
halide.

 [Watch Video Solution](#)

69. Name two metals which are found in nature the free
state.

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70. The rocky material found with ores is known as.....

 [Watch Video Solution](#)

71. Conversion of sulphide ore into an oxide by heating in excess of air is called..... .

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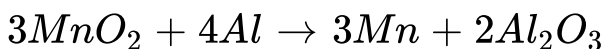
72. Froth floatation process is used for the concentration ofores.

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73. Cinnabar is an ore of

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74. Name the substance oxidised, reduced, oxidising agent, reducing agent in the following reactions:



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75. Name two metals which are not corroded easily

 [Watch Video Solution](#)

76. What is rusting? What is the chemical formula of rust?

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77. Percentage of gold in 18 carat gold is:

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78. Name two conditions necessary for rusting of iron.

 [Watch Video Solution](#)

79. What is the composition of bronze metal alloy?

 [Watch Video Solution](#)

80. Which is the common metal in brass and bronze?

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81. Which is the common constituent of all amalgams?

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82. How will you convert 24 carat gold into 22 carat gold for making ornaments?

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83. Name the constituents of stainless steel.



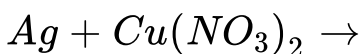
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84. Decide the following pairs will react. If they react complete the reactions:



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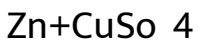
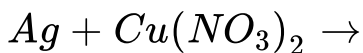
85. Decide which of the following pairs will react. If they react complete the reactions:





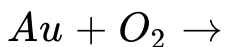
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86. Decide which of the following pairs will react. If they react complete the reactions:



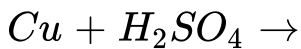
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87. Decide following pair will react. If they react complete the reactions:



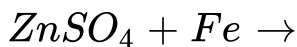
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88. Decide the following pair will react. If they react complete the reactions:



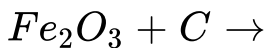
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89. Decide the following pair will react. If they react complete the reactions:



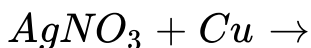
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90. Decide the following pair will react. If they react complete the reactions:



Watch Video Solution

91. Decide which of the following pairs will react. If they react complete the reactions:



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92. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

Name the metal which is

most reactive.



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93. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

Name the metal which is
poorest conductor of electricity.

 [Watch Video Solution](#)

94. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

Name the metal which is
liquid at room temperature.

 [Watch Video Solution](#)

95. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

Name the metal which is

most reactive.



Watch Video Solution

96. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

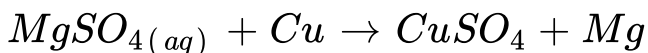
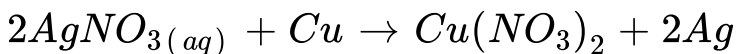
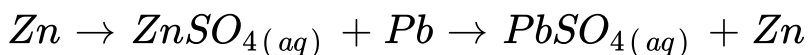
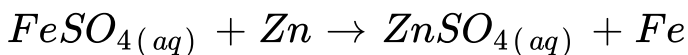
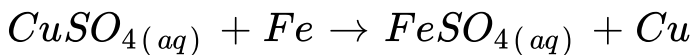
Name the metal which is

most reactive.



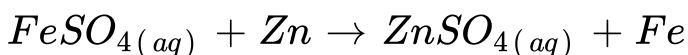
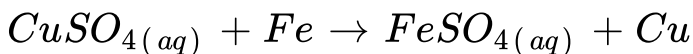
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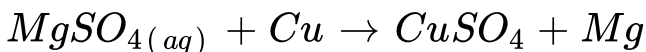
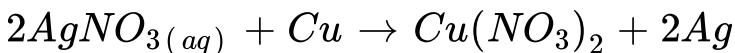
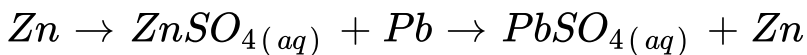
97. Which of the following displacement reaction cannot occur?



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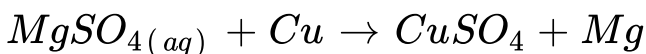
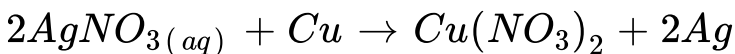
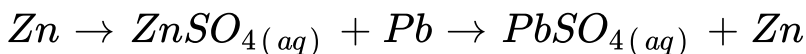
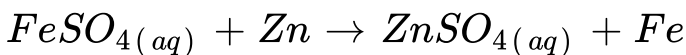
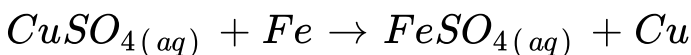
98. Which of the following displacement reaction cannot occur?





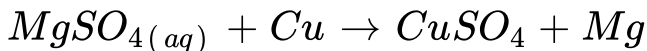
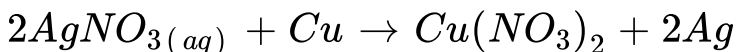
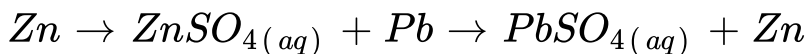
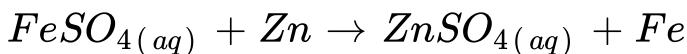
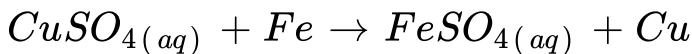
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99. Which of the following displacement reaction cannot occur?



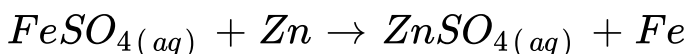
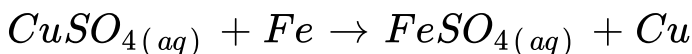
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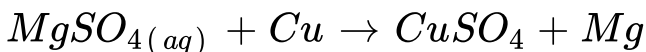
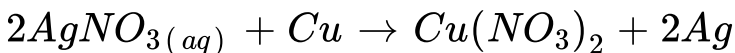
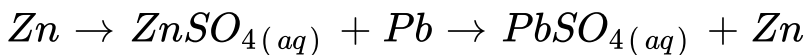
100. Which of the following displacement reaction cannot occur?



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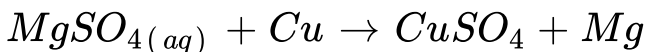
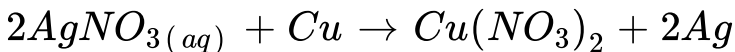
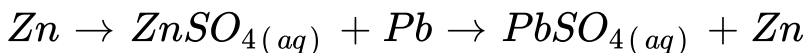
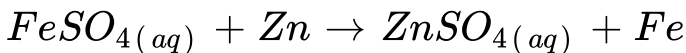
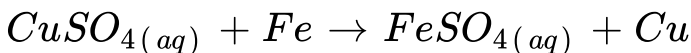
101. Which of the following displacement reaction cannot occur?





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102. Which of the following displacement reaction cannot occur?



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103. Write chemical equations for the reactions taking place when:

A piece of calcium metal is placed in water.

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104. Write chemical equations for the reactions taking place when:

Zinc carbonate is calcined.

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105. Write chemical equations for the reactions taking place when:

Steam is passed over hot iron.



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106. The electronic configurations of some elements are given below. Which of these are not metals?

A: 2,8,1

B: 2,7

C: 2,2

D: 2,8,8

E: 2,8,8,2

F: 2,8,6

G: 2,1

H: 2,4



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107. A lustrous non-metal is

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108. A non-metal which is a good conductor of electricity.....

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109. A liquid non-metal.....

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110. A liquid metal..... .

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111. A non-metal having high melting point..... .

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112. Two metals which are good conductors of electricity..... .

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113. Two metals which are poor conductor of electricity..... .

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114. Two metals which are best malleable metals..... .

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115. Name two metals which can be cut with a knife

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116. Two metals which occur in free state as well as in the combined state..... .

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117. Write balanced equations for the following:

Aluminium oxide reacts with sodium hydroxide.

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118. Write chemical equations for the reactions taking place when:

Steam is passed over hot iron.

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119. Write balanced equations for the following:

Potassium oxide is dissolved in water.



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120. Write balanced equations for the following:

Chlorine reacts with phosphorus.



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121. Write balanced equations for the following:

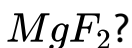
Carbon dioxide dissolves in water.



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122. Write the electron dot structures for the following:



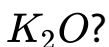
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123. Write the electron dot structures for the following:



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124. Write the electron dot structures for the following:



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125. Write the electron dot structures for the following:

AlN

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126. Write the electron dot structures for the following:

CaO?

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127. Complete the table:

	Metal	Ore	Composition
(i)	Cu	CuFeS_2
(ii)	Galena
(iii)	Gypsum
(iv)	HgS
(v)	Bauxite

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128. Which of the following are metals?

Ca, P, Cl, K, N?

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129. Which of the following metals will displace hydrogen from dilute hydrochloric acid?

?

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130. Which of the following metals will displace copper from $CuSO_4$ solution?

Al, Ni, Ag, Hg, Zn

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131. Which of the following are metals?

Ca, P, Cl, K, N?



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132. Which of the following do not react with cold as well as hot water:

Fe, Mg, Al, K, Ca



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133. Name two elements which show metallic as well as non-metallic properties. What are these called?



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134. Name one non metal which is lustrous?



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135. Name two metals which can be cut with a knife



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136. All metals are solids at room temperature. Do you agree or not?



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137. What is chemical nature of Al_2O_3 ?



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138. What is roasting? when do you use it?

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139. What is dolomite?

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140. How many valence electrons are present in aluminium?

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141. Name a metal which is the poorest conductor of electricity?

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142. Name one liquid metal and one liquid non-metal?

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143. Out of Na,K,Ag and Mg which reacts least with water?

 [Watch Video Solution](#)

144. If zinc is more reactive than copper, will copper displace zinc from $ZnSO_4$?

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145. Which of the following element is a non-metal:

Na, K, P

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146. Name two metals which are lighter than water.

 [Watch Video Solution](#)

147. Does solid NaCl conduct electricity?

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148. Which is most abundant metal from the following list?

Mg, Fe, Al, Na, K

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149. What is alumina?

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150. What is formula of greenish coating on the surface of copper when it is exposed to air and moisture?

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151. In the electrorefining of copper, some gold is deposited as:

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152. Name the components of Brass.

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153. T/F Mercury is a liquid non-metal

 [Watch Video Solution](#)

154. Magnetite is an ore of magnesium

 [Watch Video Solution](#)

155. In the electrorefining of copper, some gold is deposited as:

 [Watch Video Solution](#)

156. T/F Sodium is less reactive than copper.



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157. Two metals A and B have reduction potentials values -0.76V and $+0.34\text{V}$ respectively. Which of these will liberate H_2 from dil H_2SO_4 ?

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158. T/F Silver metals acts as non-conductor of electric current.

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159. T/F Silver metal gets tarnished on exposure to atmosphere due to the formation of AgOH .

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160. Graphite is a good conductor of electricity because

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161. The formula of cinabar is HgO .

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162. Molten sodium chloride conducts electricity due to the presence of:

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163. Na and S are present in the third period of modern periodic table which is more metallic and why?

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164. Non metal oxides are

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165. P_2O_5 and SO_2 are acidic oxides.

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166. T/F Aluminium metal does not react even with steam.

 [Watch Video Solution](#)

167. See the list of following metals:

Pb,Cu,Al,Hg,Mg,Fe,Ag

Name the metal which is

most reactive.

 [Watch Video Solution](#)

168. T/F Rust is $Fe_2O_3 \cdot xH_2O$

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169. Pure gold is 100 carat gold.

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170. Bronze and brass have copper metal as common component.

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171. What is present in the middle piece of sperm?

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172. Fill ups

Zinc displaces copper form a solution of Cu^{2+} butdoes not displace Zn.

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173. Fill ups

Magnesium liberates hydrogen gas on reacting withwater.

 [Watch Video Solution](#)

174. The white powder formed when magnesium ribbon burns in oxygen it forms

 [Watch Video Solution](#)

175. The rocky material found with ores is known as.....

 [Watch Video Solution](#)

176. Conversion of sulphide ore into an oxide by heating in excess of air is called..... .

 [Watch Video Solution](#)

177. Froth floatation process is used for the concentration ofores.

 [Watch Video Solution](#)

178. Cinnabar is an ore of

 [Watch Video Solution](#)

179. Fill ups

Sodium amalgam is a mixture of sodium and

 [Watch Video Solution](#)

180. What is the colour hydrated copper sulphate?

 [Watch Video Solution](#)

181. Fill ups

The process of covering iron with.....is called galvanization.

 [Watch Video Solution](#)

182. Fill ups

Out of Al,Zn and Ag only.....cannot displace hydrogen form dil. HCl.

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183. What are the reactions occurring at the cathode and anode of a Leclanche cell?

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184. Is nickel more reactive or less reactive than copper?

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185. Can we store copper sulphate solution in a zinc vessel ?

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186. Can you describe what happens when milk is converted into curd or yoghurt, from your understanding of proteins.

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187. How is water gas prepared ?

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188. Write the reactions:

Chlorination of Benzene

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189. Write the functions of :

Acrosome.



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190. Aluminium powder was added to a solution of copper sulphate. The colour of the solution changed from:

- A. colourless to blue
- B. blue to colourless
- C. light green to blue
- D. reddish brown to light green

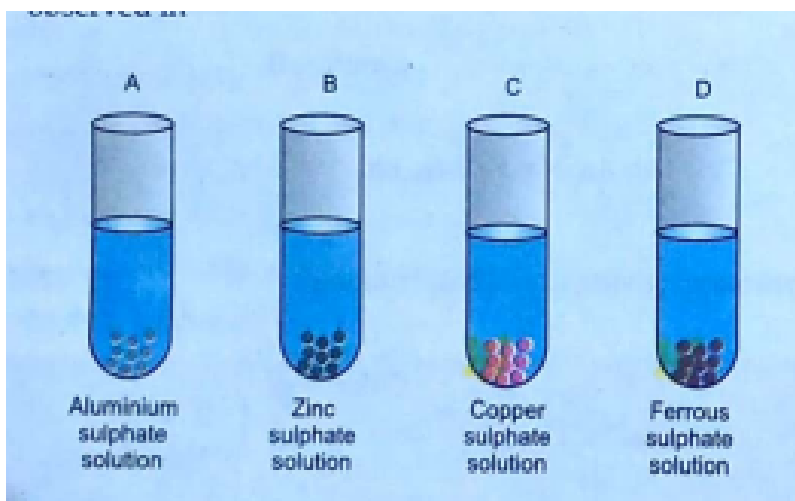
Answer:



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191. Zinc granules are placed in each of the four solutions A,B,C and D as shown. Colour change would be observed

in



A. A and B

B. C and D

C. A and C

D. B and D

Answer:

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192. Two beakers A and B contain iron sulphate solution.

In beaker A, a small piece of copper and in beaker B in a small piece of zinc are placed. It is found that after some time a grey deposit forms on zinc but not on copper.

From these observations it can be concluded that:

A. Zinc is most active metal followed by iron and then copper

B. Zinc is most active metal followed by copper and then iron.

C. Iron is most active metal followed by zinc and then copper.

D. Irons is most active followed by copper and then zinc.

Answer:



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193. A student puts some crystals of $CuSO_4$ in water taken in a test tube. The colour of the solutions obtained would be:

A. red

B. blue

C. brown

D. colourless

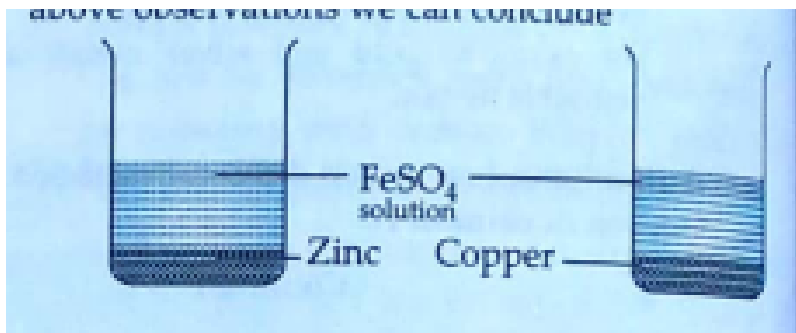
Answer:



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194. Two beakers A and B contain an aqueous solution of $FeSO_4$. In beakers A zinc granules and in beaker B copper turnings have been placed. A grey coating was observed on zinc but not on copper. From the above observations we

can conclude.



- A. zinc is more reactive than iron and copper
- B. iron is more reactive than zinc and copper
- C. iron is more reactive than zinc but less than copper
- D. copper is more reactive than iron but less than zinc

Answer:



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195. The aqueous solutions of copper sulphate and zinc sulphate appear

- A. blue and green respectively
- B. green and colourless respectively
- C. blue and brown respectively
- D. blue and colourless respectively

Answer:



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196. Solutions of copper sulphate, iron sulphate and zinc sulphate are prepared and are marked I, II and III respectively.

Few pieces of aluminium are added to each solution. After some time a change will be observed in

A. I and II

B. II and III

C. III and I

D. All of the three

Answer:



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197. A thin plate of zinc metal is placed in a beaker containing aqueous ferrous sulphate solution. The zinc

plate is taken out after 15 mins. The colour is solutions changes to:

- A. deep yellow
- B. deep green
- C. light blue
- D. colourless

Answer:



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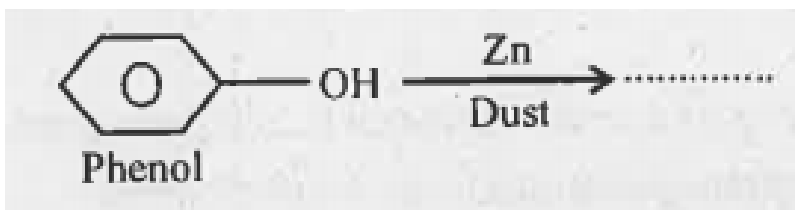
198. An iron nail is suspended in copper sulphate solution are kept for a while. It is observed that the solution.

- A. Remains blue and a coating is formed on the nail
- B. Turns green and a coating is found on the nail
- C. Remains blue and no coating is formed on the nail
- D. Turns green no coating is found on the nail

Answer:

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199. Complete the following:



A. I and II

B. I,II and III

C. II and III

D. II, III and IV

Answer:

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200. Rekha took two solutions, 10 mL each separately in two test tubes, A and B. The solutions were of $FeSO_4$ and $Al_2(SO_4)_3$ respectively. The colours of the two solutions were:

A. A-pale green, B-colourless

B. A-pale green, B-blue

C. A-colourless, B-colourless

D. A-blue, B-pale green

Answer:



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201. A chemistry lab-incharge kept zinc metal in $FeSO_4$ solution and observed that after sometime, green ferrous sulphate solution turns to colourless and some brown powder is deposited on zinc. In the above reaction, zinc metal acts as

A. Oxidising agent

B. Reducing agent

C. Dehydrating agent

D. Catalyst

Answer:

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202. Madhurima added a few iron fillings to 5 mL of aluminium sulphate $Al_2(SO_4)_3$ solution in a test tube.

The correct observation for change in colour of solution by her is

A. colourless solution turned blue

B. Blue solution turned colourless

C. Pale green solution turned blue

D. It remains colourless

Answer:



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203. Rinku took 10 mL each of two solutions A and B separately in two test tubes. The solutions were in copper sulphate and zinc sulphate respectively the colours of the two solutions were

A. A-pale green, B-colourless

B. A-blue, B-pale green

C. A-colourless, B-blue

D. A-blue, B-colourless

Answer:

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204. Raman took three metals labelled P,Q and R. He carried out displacement reactions with his salt solutions and found that P is less reactive than R but more reactive than Q. The metals P,Q and R respectively could be

- A. Zinc, copper, Aluminium
- B. Copper, Zinc, Aluminium
- C. Aluminium, Copper, Zinc
- D. Copper, Aluminium, Zinc

Answer:



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205. Which of the following is . The colour of the FeSO_4 solution would be

A. Dark green

B. Blue

C. Colourless

D. Pale green

Answer:



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206. Rashmi added aluminium metal to colourless solution of zinc sulphate. After half an hour, the solution was observed. It was colourless, she recorded her observations in the following statements:

No reactions occurred

Reaction occurred and aluminium sulphate was formed.

Zinc is more reactive than aluminium

Aluminium is more reactive than zinc

A. (i),(ii)

B. (ii),(iii)

C. (iii),(iv)

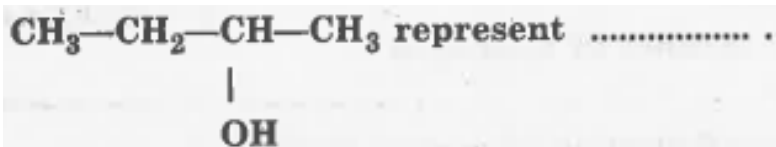
D. (ii),(iv)

Answer:



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207. Fill in the blanks:



- A. A and B
- B. B,C and D
- C. A,C and D
- D. C and D

Answer:



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208. If iron nails are added in zinc sulphate solution, the possible observation could be

- A. No reaction takes place
- B. A silvery white coating appears on iron nails.
- C. A black coating appears on iron nails
- D. A pale green colour of solutions is seen

Answer:



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209. Which of the following statements are correct:

Aluminium can displace

Cu from $CuSO_4$ solution

Fe from $FeSO_4$ solution

Zn from $ZnSO_4$ solution

Al from $Al_2(SO_4)_3$ solution

A. (I),(ii),(iii)

B. (i),(ii),(iv)

C. (ii),(iii),(iv)

D. (i),(iii),(iv)

Answer:



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210. Four test tubes marked I, II, III and IV were taken 20 ml of $Al_2(SO_4)_3$ solution in water was poured in each of the test tube I, an iron nail was put in test tube II, copper turnings were put in test tube III and a clean aluminium strip was placed in test tube IV. No change was observed in any of the test tubes. The correct inference drawn is

A. copper is more reactive than aluminium

B. zinc is more reactive than aluminium

C. Zinc is more reactive than copper

D. Zinc, iron and copper are less reactive than aluminium.

Answer:

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211. Why does calcium metal after reacting with water starts floating on its surface? Write the chemical equations for the reaction.

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212. Write chemical equations for the following:

Lead carbonate is calcined.

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213. Write chemical equations for the following:

Chromium oxide is heated with aluminium.



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214. Write chemical equations for the reaction of Zn granules with

dil H_2SO_4 ?



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215. Write chemical equations for the reaction of Zn granules with

Sodium hydroxide.

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216. Write chemical equations for the extraction of copper from its sulphide ore.

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217. When metals are treated with mineral acids, hydrogen gas is liberated but when metals are treated with HNO_3 , hydrogen gas is not liberated why?

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218. A metal that exists as a liquid at room temperature is obtained by heating its sulphide in the presence of air. Identify the metals and its ore and give the reaction involved.

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219. Metals undergo corrosion with water and oxygen present in air. Write the formula of coating on iron and copper developed during corrosion.

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220. Complete the reaction:



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221. Complete the reaction:



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222. Name two metals which readily burn in air and two metals which do not burn.

 [Watch Video Solution](#)

223. Name one metal which reacts with cold water

 [Watch Video Solution](#)

224. Name a metal which is extracted by reduction with aluminium powder.

 [Watch Video Solution](#)

225. What is the nature of metal oxides?

 [Watch Video Solution](#)

226. Why do non-metals not conduct electricity?

 [Watch Video Solution](#)

227. Why do shop keepers apply oil on tools made of iron while storing them?

 [Watch Video Solution](#)

228. What is difference between minerals and ores?

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229. Define calcination.



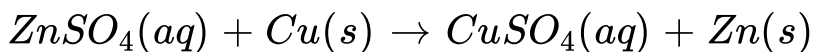
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230. What is the formula of bauxite?



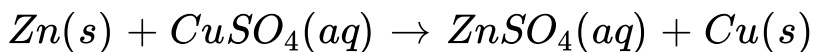
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231. Which of the following reactions is possible?



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232. Which of the following reactions is possible?



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233. Pure gold iscarat.

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234. What are alloys?

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235. Define roasting.

 [Watch Video Solution](#)

236. Name two metals which do not react with oxygen.

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237. Explain why surface of some metals acquired a dull appearance when exposed to air for a long time.

 [Watch Video Solution](#)

238. What would you observe when zinc is added to a solution of iron sulphate? Write the chemical reaction that takes place.

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239. Define corrosion of metals?

 [Watch Video Solution](#)

240. Explain, why

metals are good conductors of heat and electricity?

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241. Explain the meaning of malleable and ductile

 [Watch Video Solution](#)

242. What is meant by a reactivity series of metals?

Arrange the following metals in increasing order of their reactivities towards water:

zinc, iron, magnesium, sodium.

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243. You are given an iron strip. How will you make it into a magnet?

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244. What is difference between minerals and ores?

 [Watch Video Solution](#)

245. Define the terms 'metallurgy' and 'gangue'.

 [Watch Video Solution](#)

246. Explain, why carbon can reduce copper but not calcium oxide to calcium?

 [Watch Video Solution](#)

247. Write the importance of MOET.

 [Watch Video Solution](#)

248. Write chemical equations for the reactions taking place at the two electrodes for electrolytic refining of copper.

 [Watch Video Solution](#)

249. Write any two differences between morula and blastula.

 [Watch Video Solution](#)

250. What happens when aluminium wire is heated in air?

Give equation.

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251. How is impure metal refined electrolytically?

 [Watch Video Solution](#)

252. Explain the meaning of malleable and ductile

 [Watch Video Solution](#)

253. Why do solids have a definite volume ?



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254. Giving examples, differentiate between roasting and calcination.



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255. Name two metals which will displace hydrogen from dilute acids, and two metals which will not



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256. T/F Carbonate and sulphide ores are usually converted into oxides.



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257. State two ways to prevent the rusting of iron



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258. What is 24 carat gold? How would you convert into 18 carat gold?



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259. Sodium amalgam is a mixture of and mercury.



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260. The colour of hydrated copper sulphate is.....and that of anhydrous copper sulphate is.....

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261. T/F The process of covering iron with Zn is called galvanization.

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262. Fill ups

Out of Al,Zn and Ag only.....cannot displace hydrogen from dil. HCl.

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263. Define the terms metals, non-metals and metalloids.

Give one example in each case.



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264. Discuss the reactivity of metals with oxygen with examples.



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265. Give the chemical formula and name of the metals whose ores are the following:

Bauxite.



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266. Give the chemical formula and name of the metals whose ores are the following:

Limestone.



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267. Give the chemical formula and name of the metals whose ores are the following:

Gypsum



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268. Give the chemical formula and name of the metals whose ores are the following:

Cryolite

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269. Give the chemical formula and name of the metals whose ores are the following:

Calcite

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270. Give the chemical formula and name of the metals whose ores are the following:

Borax

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271. Give the chemical formula and name of the metals whose ores are the following:

Malachite.

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272. Give the chemical formula and name of the metals whose ores are the following:

Magnetite

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273. Give examples of metals which occur in different types of ores.

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274. What do you understand by calcination and roasting? What are the differences between them?

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275. Give an example of each of the following :

Cube

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276. Give an example of each of the following :

Prism



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277. Give an example to illustrate the following terms used in metallurgy:

roasting



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278. Give an example of each of the following :

Prism



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279. Name the various processes used for refining of metals. Which method is used for refining of volatile metals?



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280. How are metalloids different from metals? Name a metalloid.



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281. Cupellation process is used in the metallurgy of



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282. The metals Na, k and Ca react with hydrogen to form hydride but other metals dont.why?

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283. Give reasons for the following:

Aluminium easily combines with oxygen but still it can be used for making kitchen utensils.

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284. Give reasons for the following:

Dried fruit plastic bags sold in the market are filled with nitrogen gas instead of air.



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285. Discuss briefly the following:

Radioactive wastes



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286. Discuss briefly the following: Ultraviolet B



Watch Video Solution

287. Discuss briefly the following: Ultraviolet B

 [Watch Video Solution](#)

288. Give reasons for the following:

Gold and silver often occur in native state.

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289. Give reasons for the following:

Blue colour of copper sulphate solution is destroyed when iron fillings are added to it.

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290. Give reasons for the following:

Sodium metal is stored under kerosene oil.

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291. Give reasons for the following:

Silver does not displace hydrogen from dilute acid solution.

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292. Write a short notes on:

Calcination.

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293. Write a short notes on:

Thermite process.



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294. Write a short notes on:

Froth floatation process.



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295. An ore on heating in air from sulphur dioxide. Name the process than can be used for concentration of this ore. Explain the principle of this process.



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296. Distinguish between:

alloy and amalgam



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297. What is difference between minerals and ores?



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298. Distinguish between roasting and calcination. Which of these two is used for sulphide ores and why?



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299. An alloy of yellow colour is made of two metals a and b. When alloy a was dipped in dilute sulphuric acid, a layer dissolved in acid and formed colourless solution b did not dissolve in it and the surface of alloy attained red brown colour what is a b?

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300. Give six characteristic differences between metals and non-metals.

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301. Discuss the different methods of preparation and properties of dioxygen.

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302. What is corrosion of metals? Name one metal which does not corrode and one which corrodes on being kept in atmosphere.

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303. How will you show that rusting of iron metals takes place in oxygen and moisture at the same time.

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304. What is meant by a reactivity series of metals?

Arrange the following metals in increasing order of their reactivities towards water:

zinc, iron, magnesium, sodium.



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305. what happen when a piece of zinc is added to copper sulphate solution?



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306. What would you observe when you put

Some copper pieces into green ferrous sulphate solution.



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307. Name a metals which combines with hydrogen gas.

Name the compounds formed?



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308. Which of the following property is generally not shown by metals?

A. Electrical conduction

B. sonorous in nature

C. dullness

D. Ductility

Answer:



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309. The ability of metals to be drawn into thin wire is known as

A. ductility

B. malleability

C. sonorosity

D. conductivity

Answer:



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310. Aluminium is used for making cooking utensils. Which of the following properties of aluminium are responsible for the same?

Good thermal conductivity

Good electrical conductivity

Ductility

High melting point

A. (i) and (ii)

B. (i) and (iii)

C. (ii) and (iii)

D. (i) and (iv)

Answer:



311. Which of the following do not react with cold as well as hot water:

Fe, Mg, Al, K, Ca

A. Na

B. Ca

C. Mg

D. Fe

Answer:



312. Which of the following oxide of iron would be obtained on prolonged reaction of iron with steam?

A. FeO

B. Fe_2O_3

C. Fe_3O_4

D. Fe_2O_3 and Fe_3O_4

Answer:



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313. What happens when calcium is treated with water?

It does not react with water

It reacts violently with water

It reacts less violently with water

Bubbles of hydrogen gas formed stick to the surface of calcium

- A. (i) and (iv)
- B. (ii) and (iii)
- C. (i) and (ii)
- D. (iii) and (iv)

Answer:



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314. Which of the following does not give iodoform test ?

A. H_2SO_4

B. HCl

C. HNO_3

D. All of these

Answer:



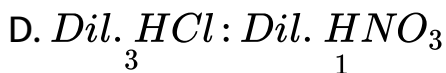
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315. The composition of aqua regia is

A. $Dil. HCl : Conc. HNO_3$
3 1

B. $Conc. HCl : Dil. HNO_3$
3 1

C. $Conc. HCl : Conc. HNO_3$
3 1



Answer:



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316. Which of the following are not a unit of time?

A. (i) and (ii)

B. (iii)

C. (iii) and (iv)

D. (i) and (iii)

Answer:



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317. Which one of the following properties is not generally exhibited by ionic compounds?

- A. Solubility in water
- B. Electrical conductivity in solid state
- C. High melting and boiling points
- D. Electrical conductivity in molten state

Answer:



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318. Which of the following metals exist in their native state in nature?

Cu, Au, Zn, Ag

- A. (i) and (ii)
- B. (ii) and (iii)
- C. (ii) and (iv)
- D. (iii) and (iv)

Answer:



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319. Electrolytic refining is used to purify which of the following metals ?

- A. (i) and (ii)
- B. (i) and (iii)
- C. (ii) and (iii)
- D. (iii) and (iv)

Answer:

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320. Silver articles become black on prolonged exposure to air. This is due to the formation of

A. Ag_3N

B. Ag_2O

C. Ag_2S

D. Ag_2S and Ag_3N

Answer:



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321. Galvanisation is a method of protecting iron from rusting by coating with a thin layer of

A. Gallim

B. Aluminium

C. Zinc

D. Silver

Answer:



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322. Stainless steel is very useful material for our life. In stainless steel, iron is mixed with

A. Ni and Cr

B. Cu and Cr

C. Ni and Cu

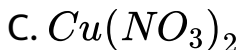
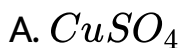
D. Cu and Au

Answer:



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323. If copper is kept open in air, it slowly loses its shining brown surface and gains a green coating. It is due to the formation of



Answer:



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324. Generally, metals are solid in nature. Which one of the following metals is found in liquid state at room temperature?

A. Na

B. Fe

C. Cr

D. Hg

Answer:

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325. Which one of the following metals can not be obtained on electrolysis of aqueous solution of its salts?

- A. (i) and (iv)
- B. (iii) and (iv)
- C. (i) and (iii)
- D. (i) and (ii)

Answer:



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326. Generally non-metals are not lustrous. Which of the following non-metal is lustrous?

A. Sulphur

B. Oxygen

C. Nitrogen

D. Iodine

Answer:



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327. Which one of the following four metals would be displaced from the solution of its salt by other three metals?

A. Mg

B. Ag

C. Zn

D. Cu

Answer:

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328. 2mL each of concentrated HCl, HNO_3 and a mixture of concentrated HCl and concentrated HNO_3 in the ratio of 3:1 were taken in test tubes labelled as A,B and C. A small piece of metal was put in each test tube. No change occurred in test tubes A and B but the metal got dissolved in test tube C respectively. the metal could be

A. Al

B. Au

C. Cu

D. Pt

Answer:



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329. An alloy is

A. an element

B. a compound

C. a homogeneous mixture

D. a heterogeneous mixture

Answer:



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330. An electrolytic cell consists of

positively charged cathode, negatively charged
anode, positively charged anode, negatively charged
cathode

A. (i) and (ii)

B. (iii) and (iv)

C. (i) and (iii)

D. (ii) and (iv)

Answer:

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331. During electrolytic refining of zinc, it gets

- A. deposited on cathode
- B. deposited on anode
- C. deposited on cathode as well as anode
- D. remains in the solution.

Answer:

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332. Which of the following metal can be cut with a knife?

A. Mg

B. Na

C. P

D. Ca

Answer:



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333. Which among the following alloys contain mercury as one of its constituents?

A. Brass

B. Bronze

C. Amalgm

D. Steel

Answer:



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334. Which among the following statements is incorrect for magnesium metal?

A. It burns in oxgen with a dazzling white flame

B. It reacts with cold water to form magnesium oxide and evolves hydrogen gas.

C. It reacts with steam to form magnesium hydroxide and evolves hydrogen gas

D. It reacts with hot water to form magnesium hydroxide and evolves hydrogen gas.

Answer:



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335. Which among the following alloys contain mercury as one of its constituents?

A. Stainless steel

B. Alnico

C. Solder

D. Zinc amalgam

Answer:

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336. Reaction between X and Y forms compound Z. X loses electron and Y gains electron. Which of the following properties is not shown by Z?

A. Has high melting point

B. Has low melting point

C. Conducts electricity in molten state

D. Occurs as solid

Answer:



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337. The electronic configurations of three elements X,Y and Z are X-2,8, Y-2, 8,7 and z-2,8,2. Which of the following is correct?

A. X is a metal

B. Y is a metal

C. Z is a non-metal

D. Y is a non-metal and Z is a metal

Answer:

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338. Although metals form basic oxides, which of the following metals form an amphoteric oxide?

A. Na

B. Ca

C. Al

D. Cu

Answer:

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339. Generally non metals are not conductors of electricity. Which of the following is a good conductor of electricity?

A. Diamond

B. Graphite

C. Sulphur

D. Fullerene

Answer:



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340. Electrical wires have a coating of an insulating material. The material, generally used is

- A. Sulphur
- B. Graphite
- C. PVC
- D. All can be used

Answer:



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341. Which of the following non-metals is a liquid?

A. Carbon

B. Bromine

C. Phosphorus

D. Sulphur

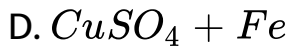
Answer:



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342. Which of the following can undergo a chemical reaction?

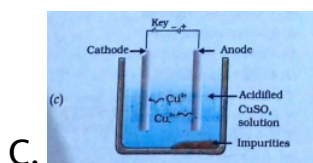
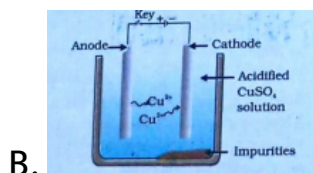
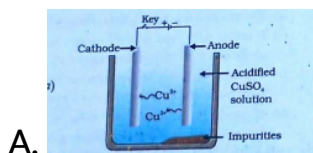




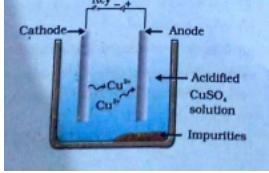
Answer:

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343. Which one of the following is correctly paired?



D.



Answer:

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344. The most malleable metal is

- A. Sodium
- B. Silicon
- C. Gold
- D. Lead

Answer:



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345. Cinnabar is an ore of

A. Mercury

B. Copper

C. Calcium

D. Lead

Answer:



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346. Which metal is the constituent of haemoglobin?

A. Iron

B. Sodium

C. Copper

D. Magnesium

Answer:



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347. The liquid non-metal is

A. Mercury

B. Bromine

C. silicon

D. Sulphur

Answer:



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348. Pure gold is equal to

A. 24 carat

B. 100 carat

C. 22 carat

D. 1000 carat

Answer:



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349. Mg dissolves in hot water to form

A. MgO

B. $Mg(OH)_2$

C. MgOH

D. $MgO \cdot Mg(OH)_2$

Answer:



Watch Video Solution

350.are alloys of iron, aluminium, Nickel and cobalt

A. Brass

B. Bronze

C. Solder

D. Alnicos

Answer:



Watch Video Solution

351.exists as a dimer.



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352. Which of the following metals is less reactive than hydrogen?

A. Copper

B. zinc

C. Magnesium

D. Lead

Answer:



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353. Which of the following metals reacts vigorously with oxygen?

A. Zinc

B. Magnesium

C. Sodium

D. Copper

Answer:



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354. Which of the following is least reactive with dil. HCl?

A. Copper

B. Zinc

C. Magnesium

D. Sodium

Answer:



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355. Which metal is used for making foils used in packing of food materials?

A. Copper

B. Platinum

C. aluminium

D. sodium

Answer:



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356. Which of the following is the sulphide ore of copper?

A. Azurite

B. Copper glance

C. Cuprite

D. Malachite

Answer:



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357. The liquid non-metal is

A. Mercury

B. Silicon

C. Hydrogen

D. Bromine

Answer:



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358. The phenomenon of producing a characteristic sound when a material is struck on the metallic surface is

A. Ductility

B. Malleability

C. Sonarity

D. Conductivity

Answer:



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359. Copper reacts with dilute nitric acid and liberates

A. Nitroen dioxdе

B. Nitric oxide

C. Nitrogen pentoxide

D. Nitrous oxide

Answer:



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360. Which of the following metals will change blue colour of copper sulphate solution ?

A. Ag

B. Hg

C. Zn

D. Au

Answer:



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361. Most abundant metal on the surface of earth is:

A. Aluminim

B. Iron

C. Oxygen

D. Copper

Answer:



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362. The second most abundant metal present in the crust of the earth is

A. calcium

B. aluminium

C. copper

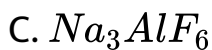
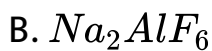
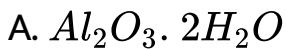
D. iron

Answer:



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363. Chemical formula of cryolite is

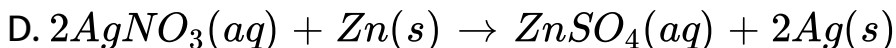
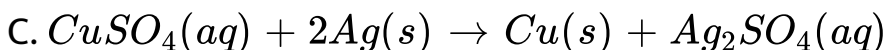
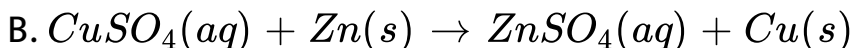
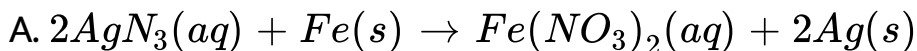


D. $NaAlF_3$

Answer:

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364. Which of the following reactions cannot occur?



Answer:

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365. The liquid metals is

- A. Bismuth
- B. Magnesium
- C. Mercury
- D. Sodium

Answer:

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366. Which one of the following statements is incorrect?

A. (i),(iii)

B. (ii),(iii)

C. (i),(iv)

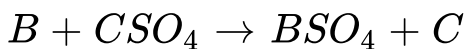
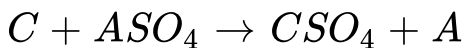
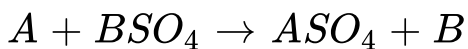
D. (iii) and (iv)

Answer:



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367. Consider the following displacement reactions:



Which of the following statement is correct?

A. B is more reactive than A but less than reactive than C

B. A is most reactive among A,B and C

C. B is more reactive than C but less reactive than A

D. C is more reactive than C but less reactive than A.

Answer:



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368. Which of the following statements are correct?

Graphite is non-metallic, yet it conducts electricity

Iron does not react with O_2 even on heating

Zinc can displace Fe as well as Cu from their aqueous

solutions

gold cannot dissolve even in aqua-regia

- A. (i) and (ii)
- B. i) and (iii)
- C. (i) and (iv)
- D. (ii) and (iii)

Answer:



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369. An essential element of amalgam is

- A. Sodium

B. Silver

C. Mercury

D. Aluminium

Answer:



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370. Which of the following metal can be cut with a knife?

A. Gold

B. Sodium

C. Zinc

D. Amalgam

Answer:



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371. Why are metals used for making wires ?

A. Nitrogen

B. Graphite

C. PHosphorus

D. Sulphur

Answer:



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372. The non-metal which occurs in solid at room temperature are

- A. Bromine and iodine
- B. Nitrogen and phosphorous
- C. Carbon and sulphur
- D. Iodine and nitrogen

Answer:



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373. Rusting of iron takes place in

- A. Ordinary water

B. distilled water

C. both ordinary and distilled water

D. none of the above

Answer:



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374. A metal which does not liberate hydroge gas on reaction with acids is

A. Cu

B. Fe

C. Mn

D. Zn

Answer:



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375. Silver articles turn black after a period of time because of the formation of

- A. silver oxide
- B. silver sulphide
- C. silver chloride
- D. silver nitrate

Answer:



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376. In the galvanization process, iron articles are coated with

A. Mg

B. Zn

C. Al

D. Ag

Answer:



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377. Which of the following is correct reactivity series?

A. Na,Mg,Al,Cu

B. Mg,Na,Al,Cu

C. Na,Mg,Cu,Al

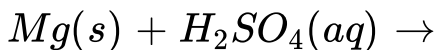
D. Mg,Al,Na,Cu

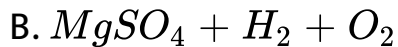
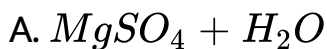
Answer:



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378. Complete the reaction:





D. no reaction

Answer:



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379. Which of the following methods is suitable for preventing an iron frying pan from rusting:

A. applying grease

B. applying paints

C. Applying a coating of zinc

D. All of the above

Answer:



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380. Copper corrodes in moist air and changes to

A. red Cu_2O

B. black CuO

C. green $CuCl_2$

D. green $CuCO_3 \cdot Cu(OH)_2$

Answer:



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381. Brass contains

A. Cu and Sn

B. Cu and Ni

C. Cu and Zn

D. Mg and Al

Answer:



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382. A metal which does not liberate hydroge gas on reaction with acids is

A. Cu

B. Fe

C. Mn

D. Zn

Answer:



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383. A metal occurs in nature as its ore X which on heating in air converts to Y. Y reacts with unreacted X to give the

metal. The metal is

A. Hg

B. Cu

C. Zn

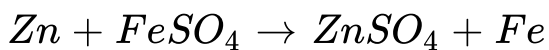
D. Fe

Answer:



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384. In the reaction :



A. Zing gets oxidised

B. Zinc is an oxidising agent

C. Fe gets oxidised

D. Zn and Fe both get oxidised.

Answer:



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385. Which of the following do not react with cold as well as hot water:

Fe, Mg, Al, K, Ca

A. Na

B. Ca

C. Mg

D. Fe

Answer:



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386. The ability of metals to be drawn into thin wire is known as

A. ductility

B. malleability

C. sonorosity

D. conductivity

Answer:



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387. Generally, metals are solid in nature. Which one of the following metals is found in liquid state at room temperature?

A. Na

B. Fe

C. Cr

D. Hg

Answer:



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388. Reaction between X and Y forms compound Z. X loses electron and Y gains electron. Which of the following properties is not shown by Z?

- A. Has high melting point
- B. Has low melting point
- C. Conducts electricity in molten state
- D. Occurs as solid

Answer:



389. Although metals form basic oxides, which of the following metals form an amphoteric oxide?

A. Na

B. Ca

C. Al

D. Cu

Answer:



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390. Which of the following non-metals is a liquid?

A. Carbon

B. Bromine

C. Phosphorus

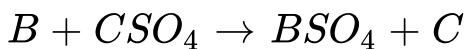
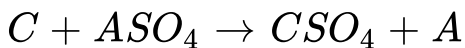
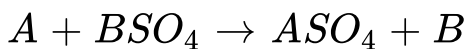
D. Sulphur

Answer:



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391. Consider the following displacement reactions:



Which of the following statement is correct?

A. B is more reactive than A but less than reactive than C

B. A is most reactive among A,B and C

C. B is more reactive than both A and C

D. C is more reactive than C but less reactive than A.

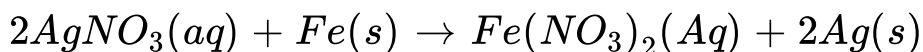
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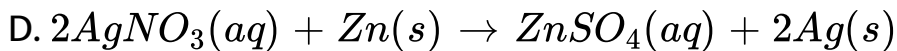
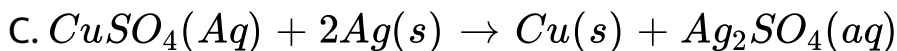
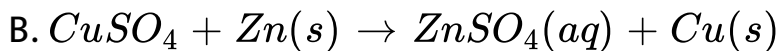


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392. Which of the following reactions cannot occurs?

A.

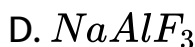
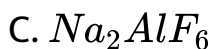
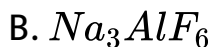
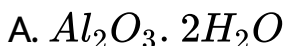




Answer:

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393. Chemical formula of cryolite is



Answer:



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394. Which of the following is the sulphide ore of copper?

A. Azurite

B. Copper glance

C. Cuprite

D. Malachite

Answer:



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395. True/false

Gold dissolves in aqua regia.

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396. T/F Rust is $Fe_2O_3 \cdot xH_2O$

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397. Sulphide ores are concentrated by froth floatation process.

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398. True/false

the alloy invar contains iron and aluminium.

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399. Can copper displace iron from iron sulphate solution? Give reasons.

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400. The rocky material found with ores is known as.....

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401. Fill ups

Most oxides of metal are.....in nature.



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402. Fill ups

the percentage of gold in 22 carat gold is..... .



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403. Fill ups

In galvanisation iron is protected by the coating of..... .



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404. In the electrorefining of copper, some gold is deposited as:

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405. Why are metals called electropositive elements and non-metals called electronegative elements?

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406. Which of the two metals copper and silver is more reactive?

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407. Name two metals which react with dilute nitric acid to produce hydrogen gas.

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408. Give one example of each of metal that is good conductor of electricity and metal that is poor conductor of electricity.

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409. An element M forms an oxide M_2O_3 . Which is acidic in nature. State whether the element M is a metal or a non-metal.



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410. A solution of $CuSO_4$ was kept in an iron pot. After a few days the iron pot was found to have a number of holes in it. Explain the reasons in terms of reactivity. Write the equations of the reaction involved.



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411. Define calcination and roasting.



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412. What would happen to iron railings on the roadside if they are not painted? Why does it happen so?

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413. Explain the following:

Carbon cannot reduce the oxides of Na and Mg.

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414. Explain the following:

Reactivity of Al decreases if it is dipped in HNO_3 .

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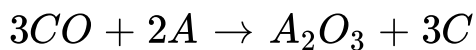
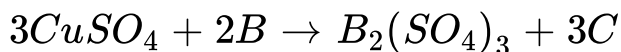
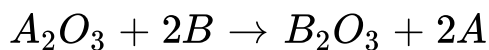
415. Explain the following:

Titanium is a strategic metal.



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416. A, B and C are three elements which undergo chemical changes according to following equations:

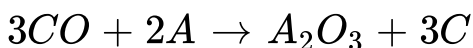
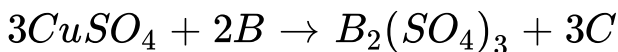
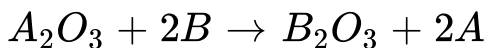


Which of these is least reactive.



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417. A, B and C are three elements which undergo chemical changes according to following equations:

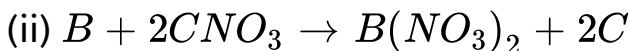
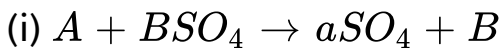


Which of these is least reactive.



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418. Consider the following reactions :



Arrange the metals A, B, C in the decreasing order of reactivity.

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419. With the help of diagram show the transfer of electrons between the atoms in the formation of MgO.

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420. Why are ionic compounds usually hard?

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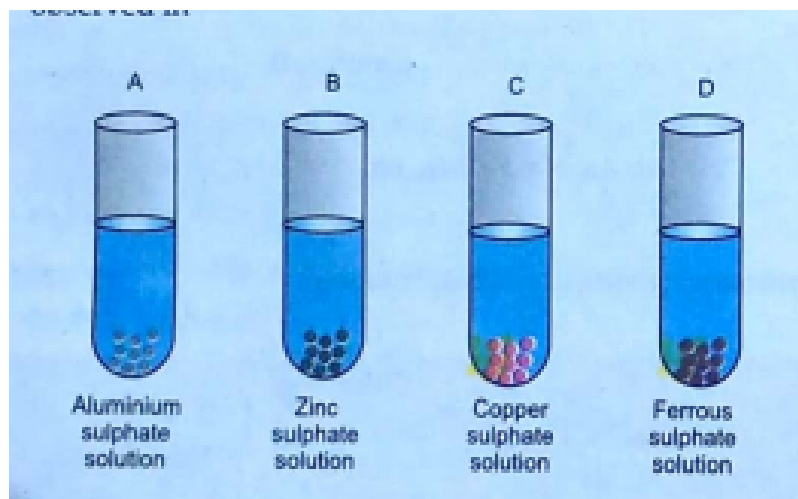
421. Ionic solids conduct electricity in the molten state but not in the solid state. Explain.

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422. Name the solvent in which ionic compounds are generally soluble.

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423. Zinc granules are placed in each of the four solutions A,B,C and D as shown. Colour change would be observed in



A. A and B

B. C and D

C. A and C

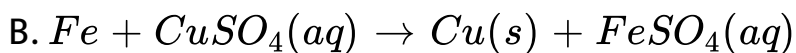
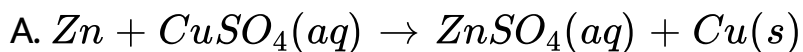
D. B and D

Answer:

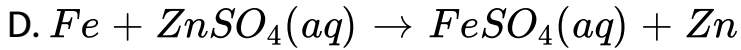
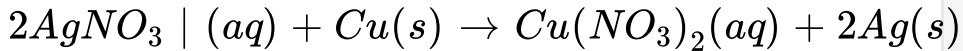


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424. Which of the following reaction does not occur:



C.



Answer:



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425. Ferrous sulphate crystals are dissolved in water. The colour of the solution is

A. Dark green

B. blue

C. Colourless

D. Pale green

Answer:

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426. Two beakers A and B contain iron sulphate solution. In beaker A, a small piece of copper and in beaker B in a small piece of zinc are placed. It is found that after some time a grey deposit forms on zinc but not on copper. From these observations it can be concluded that:

A. Zinc is most active metal followed by iron and then copper

B. Zinc is most active metal followed by copper and then iron.

C. Iron is most active metal followed by zinc and then copper.

D. Iron is most active metal followed by copper and then zinc.

Answer:

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427. Write chemical equations for the following reactions.

Zinc carbonate is heated in the absence of air.

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428. What happens when

a mixture of Cu_2O and Cu_2S is heated?



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429. A metal M does not liberate hydrogen from acids but reacts with oxygen to give a black coloured produce.

Identify M and black coloured product and also explain the reaction M with oxygen.



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