

Q.	Answer	Mark	Additional Guidance
6. (a)	removal of oxygen	1	
(b) (i)	zinc, iron, carbon, copper	3	1 mark for zinc first 1 mark for copper last 1 mark for iron and carbon in right order
(ii)	zinc higher than carbon and iron because zinc oxide is not reduced by them  copper less reactive than carbon or zinc because they do reduce copper oxide  iron higher than carbon because iron oxide is not reduced by carbon	3	
(c) (i)	from the series, iron is more reactive than copper	1	
(ii)	iron + copper oxide $\longrightarrow$ iron oxide + copper	2	
(d)	the temperature is not 700 °C in the blast furnace (it is considerably higher)  or  the carbon in the blast furnace is converted into another reducing agent which operates more effectively at a lower temperature (carbon monoxide)	1	