

Assignment for CY104S1

1. A mechanic was working on a machine that had an exposed copper plate that required tightening with a bolt. He ~~was~~ had the choice of using a copper or steel bolt. ~~which of the following~~
I believe that mechanic should use the copper bolt for tightening the copper plate because if he uses that steel bolt then it will form galvanic cell with copper plate. Thus it will experience galvanic corrosion because of this it is not advisable to use steel bolt for copper ~~bolt~~ plate.
2. Ship design & maintenance are critical to preventing corrosion. We can use protective coating, cathodic protection, anodic protection and design & selection of suitable materials for protecting / preventing ship from corrosion. In this protective coating we use some particular metal either cathodic or anodic, so we can prevent metal / ship from corrosion. If ship metal is less ~~cathodic~~ anodic than metal then we can use Al, Cd, Zn etc metals, for this kind of protection. In cathodic & anodic protection we use sacrificial anode method. In this method the metallic structure to be protected is connected by a wire to a more anodic, so that all the corrosion is concentrated at more active metal. In this

method more active sacrifices ~~that~~ then it is called as 'sacrificial anode'. I believe that this sacrificial anode method is one of the best method for preventing ship from corrosion because this method is easy to install & minimum maintenance is required hence it is commercially cheaper than other method.

3. To make our clothes vibrant, we use a variety of dyes. However, textile dying is one of the most damaging components of global fashion business, having a devastating impact on the environment and harming human health. It contaminates our water with toxic dye. We can use natural dyeing process instead of chemical process. Because natural dye ~~to~~ contains only a natural agent as it has very less pollution in nature & also some of dyes can be ~~be~~ removed or reused. Natural dye is not harmful for human ~~either~~ & for environment ~~also~~. So I ~~the~~ believe we must encourage people for using natural dye so we can reduce the harmful effects of chemical dye.