

4).

a)

For a Scuba divers tank I would say the tank should be made from either Steel or Aluminium. The tank should be light but strong enough to hold pressures of up to 200psi. The tank should be tough enough to withstand bumps and wear and tear from bits of coral etc. The material should be repairable and ductile.

b) 6062 T6 Aluminium.

Aluminium is a light weight and ductile material. The Yield Strength is high enough to withstand the pressure needed. It's also light with a density of 2.7 g/cm^3 . The material is used for Aircraft fuselage skin, meaning it has good heat and pressure resistance.

Steel Alloy 1020 - Hot rolled.

This Steel Alloy will withstand the pressure needed but will be heavy overall with a density of 7.9 g/cm^3 . Also does have the risk of Corroding due to the salt water. Which means it will potentially break under pressure.