

(Metallic bonding)

Q1.a) (2018)

$$\frac{2}{20} \times 100$$

$$= 10 (\%)$$

Q1.b) (2018)

an alloy

Q1.c) (2018)

the layers in the mixture are distorted

Q2. (2020)

Property	Reason
Conducts electricity	Aluminium has delocalised electrons
	Aluminium has layers of atoms which can slide
High melting point	Aluminium has strong metallic bonds
	Aluminium has weak intermolecular forces
	Aluminium has a random arrangement of atoms

additional line from a box on the left negates the mark from that box

Q3.(2020)

a mixture of metals

Q4.(2020)

bauxite contains a variable
percentage of aluminium

Q5.(2021)

metallic

Q6.(2022)

delocalised electrons

(the electrons) carry (electrical)
charge

(the electrons move) through the
metal / aluminium / structure

Q7.a)(2023)

(as the percentage by mass of
tin increases the) melting point
(of solder) decreases

to 183 °C

then increases

Q7.b)(2023)

232 °C