Name of the Student:_____
Max. Marks : 10 Marks **Time : 10 Minutes**

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
	An answer that combines **any four** of the following points of understanding to provide a logical description: • chooses either thermocouple or infra-red thermometer (1) • molten steel is poured into a crucible (1) • a stopwatch is started (1) • the crucible + contents are allowed to cool down (in the room) (1) • temperatures are taken at regular intervals (e.g. every minute) (1)	any interval with steel – every 10 minutes etc.	**(4)**

Q2.

Question Number:	Answer	Additional Guidance	Mark
	100 (°C) (1)	accept any answer between and including 95 and 102 (possibility that it is not pure water and possibility of heat loss prevents reaching boiling point)	**(1)** AO 2 1

Q3.

Question number	Answer	Additional guidance	Mark
	statements to include any **two** from use cladding / (extra) insulation (1) use double thicknesses of the concrete (1) use silver / reflective / white (paint) (1) plant trees around (wind break) (1) use double glazed windows (1) (properly) close window(s)/door	 create cavity draft exclusion	**(2)** **AO1**

Q4.

Question number	Answer	Additional guidance	Mark
	Any **two** from the following in any order	Answers need not be exactly the same as those given here provided that the meaning is clear.	**(2)** **AO1**
	(I took a) reading of the water level in the measuring cylinder without the metal. (1)	accept measured / read for take a reading accept reading of original level / volume accept starting with a specified amount e.g. 50ml	
	(I made sure that) the metal was fully immersed / submerged (1)	all the metal was under water	
	(I) subtracted the two readings / volumes (1)	took one from the other / found the difference ignore: repeat and/or average other measurements such as mass other methods such as Eureka can ideas of spillage reading from bottom of meniscus	

Q5.

Question number	Answer	Mark
	[x] **B** bigger than in water / less than water A is incorrect because the density of steam is less than water. C is incorrect because the space between the particles increases. D is incorrect because the space between the particles increases and density of steam is less than water.	**(1)** **AO1.1**