



EXAMINATIONS COUNCIL OF SWAZILAND
Swaziland General Certificate of Secondary Education

PHYSICAL SCIENCE

6888/01

Paper 1

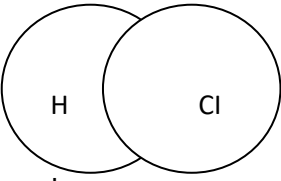
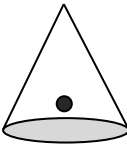
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Confidential

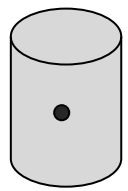
MARK SCHEME

{6888/01}

MARKS: 40

- 1 (a) sublimation; A - Deposition
A - Desublimation [1]
- (b) liquid particles can move from place to place while solid particles are in fixed positions; [1]
- 2 time taken (by bob);
A – time taken by pendulum / mass / stone [1]
to swing from **B** (through **C**) to **D** and back to **B**; [1]
- 3 sharing one pair of electrons; [1]
stable atoms; [1]
- wrong / no symbol(s) – earns 1 mark
- 
- 4
- 

E



F
- E**-towards base; A - x on base but not touching outs curve [1]
F-at the centre; [1]
- 5 carbon -12 has 6 neutrons and carbon -14 has 8 neutrons; (reject different mass numbers and different number of neutrons) [1]
- 6 stay magnetised; [1]
magnetic force / field passes through the paper; [1]
- 7 (a) chlorine (gas); [1]
- (b) chloride ion or copper(II) ion; [1]
- (c) carbon is inert; [1]
- 8 Fig. 8.2; [1]

bulb receives maximum voltage; [1]

9 reversible / no new substance formed; [1]

10 attract; [1]

discs receive opposite charges; [1]

11 $\text{Al}_2(\text{CO}_3)_3$; [1]

12 $P = \frac{V^2}{R}$ or $\frac{1.5^2}{2}$; [1]

= 1.13 W; [1]

13 (a) aircraft fuel; [1]

(b) carbon monoxide; [1]

water; [1]

14 (a) to allow fine particles settle at the bottom; [1]

(b) (i) calcium / magnesium hydrogen carbonate; [1]

(ii) boiling / distillation; [1]

15 2 V/ div x 2 div; [1]

4 V; [1]

16 ${}_Z^AX \rightarrow {}_{Z+1}^AX + {}_{-1}^0e$ OR ${}_Z^AX \rightarrow {}_{Z+1}^AX + {}_{-1}^0\beta$

- daughter nuclide; [1]
- beta symbol / electron symbol; [1]
- 17** hydrogen (ion) / proton; [1]
- 18** chemical; [1]
- light / sound; **A-** heat / kinetic / gravitational potential energy; [1]
- 19** coke / carbon; [1]
- 20** glass is a poor conductor of heat / glass is brittle; [1]
the inside expands while the outside stays the same; [1]
- 21** magnesium loses two electrons; [1]
to form magnesium ion; [1]