

EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

PHYSICAL SCIENCE

6888/01

Paper 1

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Confidential

MARK SCHEME

{6888/01}

MARKS: 40

- 1 **D;** [1]
- 2 **(a)** chromatography; [1]
(b) locating agent; [1]
- 3 $s=d/t$ OR $s=100/3$; [1]
33.3 m/s; [1]
- 4 irreversible/new substance formed/releases energy; [1]
- 5 speed is increasing (acceleration)/ acceleration decreases, oe; [1]
non-uniform; [1]
- 6 **(a)** **A;** [1]
(b) **C and D;** [1]
(c) **B;** [1]
- 7 **A:** live; [1]
B: neutral; [1]
- 8 stronger forces of attraction between the solid particles: [1]
solid particles vibrate in fixed positions while liquid particles move from place to place within the liquid/particles are fixed in a solid and cannot move, while they can move round in a liquid; [1]
- 9 kill cancer cells/sterilisation/detecting fractures in pipes; [1]
- 10 **A:** lead compounds/ oxides of nitrogen/carbon dioxide/unburned hydrocarbons; [1]
B: incomplete combustion of carbon-containing compounds (fuels); [1]
- 11 loses energy as it swings/some energy converted to heat/loss of gpe/loss in height; [1]
due to air resistance (friction); [1]
- 12 different sizes of metal atoms make arrangement of lattice less regular; [1]
preventing layers from sliding easily; [1]

13 (a) correctly indicated (normal and angle);

A- i for angle of **incidence** instead of 60° ;

[1]

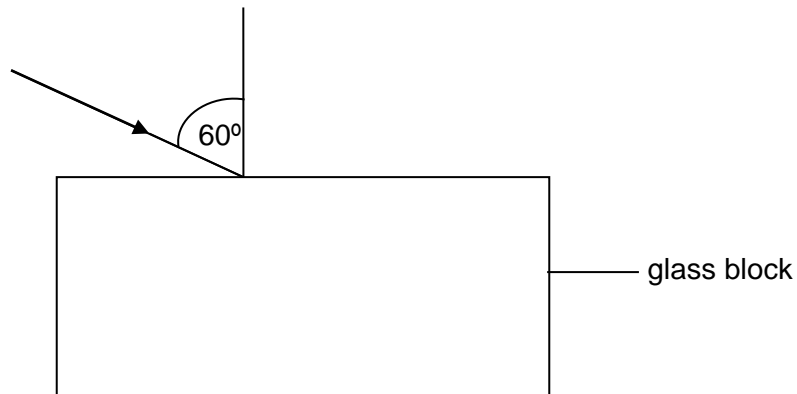


Fig. 4.1

(b) $n = \sin i / \sin r$ OR $n = \sin 60^\circ / \sin 35.3^\circ$;
 $= 1.5$;

[1]

[1]

14 (a) iron nail;

[1]

(b) copper atom loses two electrons;
 to form copper ion;

[1]

[1]

15 (a) clockwise moments = anti-clockwise moments / no net (resultant) force/centre of mass is directly above the pivot;

[1]

(b) $w = mg$ OR $w = 30 \times 10$;
 300N ;

[1]

[1]

16 (a) atom;

[1]

ion;

[1]

compound;

[1]

17 correct shape, with no field lines crossing;

[1]

correct direction of arrows (and at least three arrows);

[1]

18 zinc prevents contact between steel and the elements of rusting;

[1]

sacrificial protection ;

[1]

19 0.05;

[1]

$(2.1 + 0.05) = 2.15 \text{ cm}$;

[1]