**PAVEMENT NATIONAL EXAMINATION**

**OPENER EXAMINATION** **TERM ONE 2021/2021**

**FORM 4 PHYSICS PP2 (MARKING SCHEME)**

**1.** B- more current was supplied by the batteries to a low resistance circuit.

**2.** Hard magnetic materials are difficult to magnetize though they retain the magnetism for a longer period. Soft magnetic materials are easily magnetized but don’t keep it for a longer period.

**3.** This is because of multiple reflection of the object and its image on each mirror

**4.**

= 1.524

**6.**

= 60.63 W

**7.**

= ) m

=

148.5 =

= 124.5 m

**8.**

=

**9.**

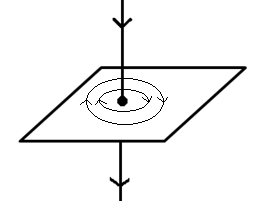
**=**

P

=

=

**10.**



**11.** (a)

**=**

(b) C =

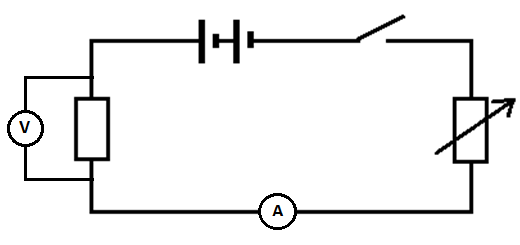
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=

(c) - the critical angle must be exceeded

- the light ray must be coming from a denser medium to a rarer medium

**12.**



**13.** the majority negative charges are first attracted to the cap leading to a decrease in divergence, then minority positive charges are repelled. This leads to increase in divergence

**14.** I

**=**

=

**15.**

**=**

**16.**

The image is - real, diminished and inverted

**17.** (a) generator

(b) has a high resistance and melting point

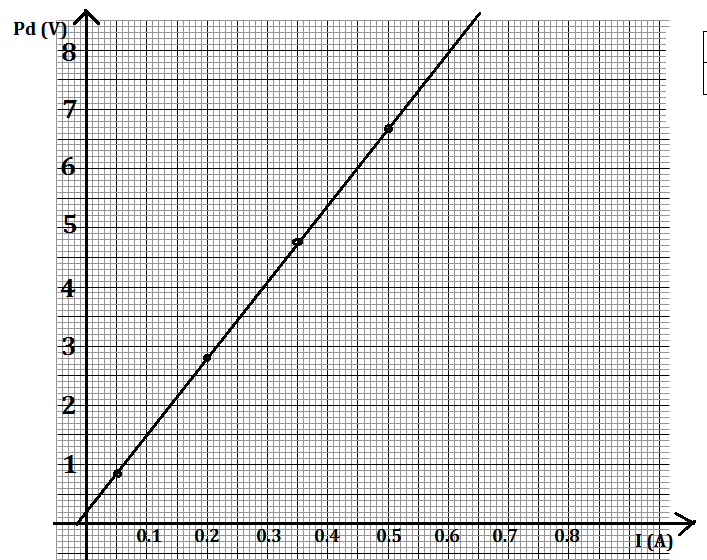
(c) (i)

V =

(ii)

= 0.00104 Ω

**18.**



1. Gradient =
2. 0.2 V
3. 0.65 V

**19.** (a) the currevt flowing ia a circuir is direcly proportional to the potential difference across it provided temperature and other factors are kept constantt

(b) (i)

(ii) 3 +1 = 4 A

(iii) R = 28 +

(iv) V

= 142 V

**20.** (a) WZ and XY

(b) anticlockwise

(c) – increase the current

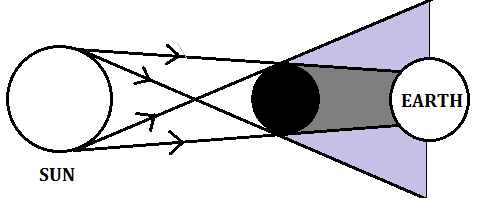
- use stronger magnet

- increase the number of turns

- making sure that the coils are perpendicular to the magnetic field lines

(d) the coil rotates in the opposite direction

**21.** (a)



(b) it is possible since moon is rotating/moving. The shadow “moves”

(c) when the moon is far from the earth, the moons shadow is usually short and doesn’t reach he earth.