PHYSICS FORM TWO ZANZIBAR 2014

Solutions from: Maktaba by TETEA

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i	ii	iii	iv	v	vi	vii	viii	ix	x
C	D	B	C	No answer	B	D	C	C	A

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i	ii	iii	iv	v	vi	vii	viii	ix	x
G	H	J	K	D	A	H	E	F	I

3.(ii) Measure, record

   (iii) Random, systematic

   (iv) reflected ray, normal

   (v) Length, mass

4. (a)(i)Temperature is the measure of degree of hotness or coldness of the body.

   (ii)Lower fixed point is the smallest temperature used for reference.

   (b)- water is transparent

      -has high boiling point

      -it can vaporize

   (c)$248^0F = 120^0C$

5. (a)Law of flotation states that, "a floating body displaces its weight of fluid on which floats"

   (b)-density of iron is greater than that of water

      -iron has no large open space

      -iron displace small amount of water

   (c) weight = density x volume

           = 1000 x 0.006 =6 kg

6. (a)(i)Work s the product of force and distance moved by that force.

(ii)Power is the rate of doing work

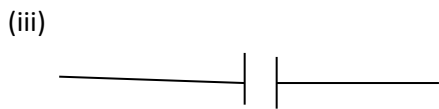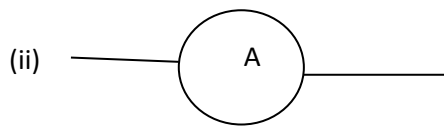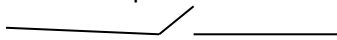(b)Work done = force x distance = 100 x 10 x 100 = 100000 J

Power = work done / time (s)

= 100000/(2 x 60)

Power = 833.3 W

7. (a)(i)Law of static electricity states that " like charges repel, unlike charges attracts"

(ii)Conductor is the material that allows heat and electricity to pass through it, while insulator is the material that does not that allows heat and electricity to pass through it.

(b)(i)   used to open or close the electric current
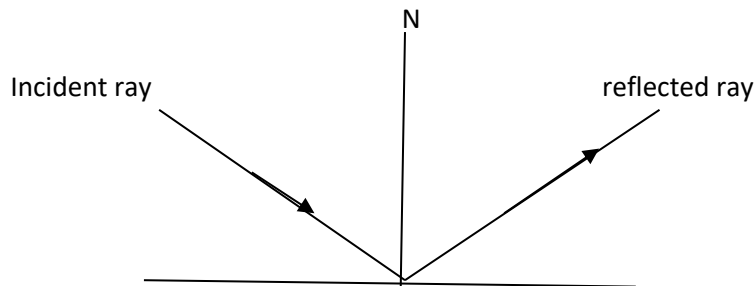
(ii)

(iii)

(iv)

(c)Resistance = V/I

= 3 /0.3

Resistance is 10Ω

8. (a)(i)Transparent material are materials which allow light to pass through

(ii)Translucent materials are materials which allow only small amount of light to pass through

(iii)Opaque are materials that do not allow light to pass through them

(c)Plane mirror

9.(a)Density is the ratio between the mass of the substance and its volume, while RD is the ratio between the density of substance and density of water.

(b)This means that the wood has a mass of 0,8 g per unit volume

(c)*REMARK, THERE IS AN ERROR ON THE QUESTON*

10. (a)Retardation is the negative acceleration of a substance.

(c)(i)Acceleration = (30 – 0)/30

$$= 1 \text{ m/s}^2$$

(ii)Retardation = (0 – 30)/(180 – 90)

$$= 0.33 \text{ m/s}^2$$

(iii)total distance = ½ x 30 x 30 + 60 x 30 + ½ x 90 x 30

= 3600 m

11. (a)(i)Pressure is the force acting normally per unit area.

(ii)-to compress boles

-used in car brakes

-used in pumps

(b)Let force be F

since, pressure at smaller piston = pressure at larger piston

5/0.001 = F/0.1

The force is 500 N