PHYSICS FORM TWO NECTA 2006.

Solutions from: Maktaba by TETEA

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i	ii	iii	iv	v	vi	vii	viii	ix	x
C	B	B	C	A	C	C	B	D	C

xi	xii	xiii	xiv	xv	xvi	xvii	xviii	xix	xx
C	D	D	B	D	C	C	D	B	B

2

i	ii	iii	iv	v	vi	vii	viii
D	F	G	A	B	C	E	H

3. (i)Ampere

(ii)g/cm^3

(iii)Joules

(iv)m/s

4.(a)Upthrust is the force which acts upward the body in liquid, while apparent weight is the weight of a body when immersed in fluid.

(b) Weight in air = 6.4 + 4.7

= 11.1 N

5(a)(i)Work is the product of force and distance moved by that force.

(ii)power is the rate at which work is done.

(iii)Energy is the ability to do a work.

(b)Forms of energy

(i)mechanical energy

(ii)sound energy

(iii)electrical energy

(iv)light energy

(v)solar energy.

6. (a)(i)cell

(ii)resistor

(iii)battery

(iv)lamp

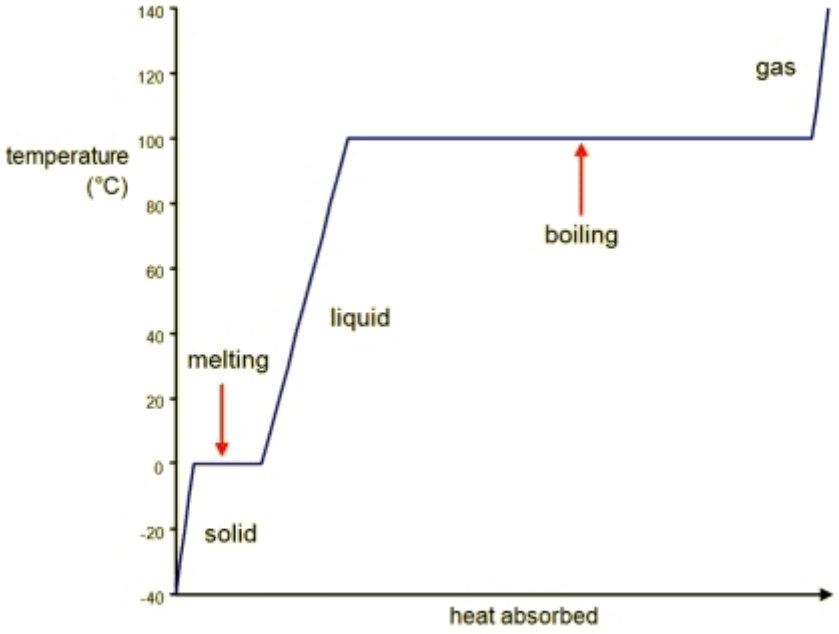
(v)switch

(b) pole R is N , T is S

7.(a)(i) Heat Capacity is the amount of heat required to raise the temperature of the substance by 1K

(ii)specific Heat Capacity is the amount of heat required to raise the temperature of unit mass of a substance by 1K.

(b)



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(c)

$180^0C = 356^0F$

8. (a)Principle of moments states that for bodies at equilibrium, total clockwise moments equals to total anticklockwise momunts.

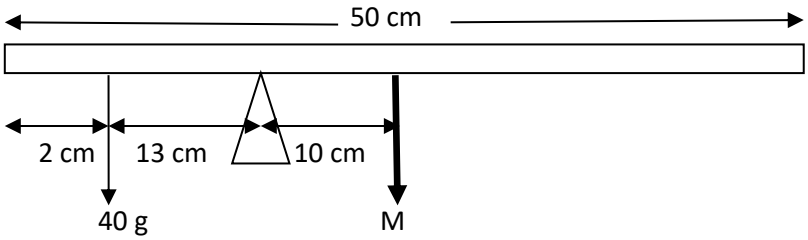
(b)States of equilibrium are,

-stable

-unstable

-neutral.

(c)(i)Diagram



-recall that, clockwise moments = anticlockwise moments

M x 10 = 40 x 13, mass = 52 g

9(a)Pressure is the force acting normally per unit area of a substance., SI unit N/m^2

(b)sharp knife has small surface area hence there is large pressure and hence become easy to cut the meat as compered to the blund knife.

(c)

Small area = 1.2 x 0.5 = 0.6 m^2

Volume = 1.2 x 0.5 x 2 = $1.2m^3$

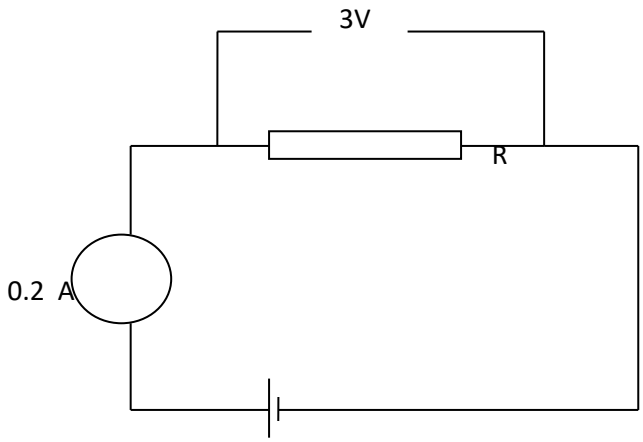
Mass = density x volume = 25 x 1.2 = 30 kg

Then, pressure = force/ area

= (30 x 10)/0.6

= 500 N/m^2

10.(a)(i)circuit diagram



(ii)Resistance = v/i

= 3/0.2

Resistance is 15Ω

(b)(i)Law of static electricity states that "like charges repel unlike charges attract"

(ii) all the electric fields will repel, forming the neutral point.

(c)Advantages of friction are;-

-helps in walking

-helps in braking

-helps in writing