PHYSICS FORM TWO NECTA 2001

Solutions from: Maktaba by TETEA

by Yohana Lozaro

1	2	3	4	5	6	7	8	9	10
C	A	A	D	A	A	D	D	D	B

11	`12	13	14	15	16	17	18	19	20
C	C	D	D	A	B	B	C	C	A

21.

i	ii	iii	iv	v
d	e	f	b	a

22.(i)meniscus

(ii)Newton(N), Joule(J)

(iii)Magnetic fields, Beam of light

(iv)Lunar eclipse

23. (i)Apparent weight,

(ii) acceleration =(25 – 10)/60

= 0.25 m/s^2

(iii)Siolid,liquid and gas

(iv) anle PQR = 180 – (70 + 70)

Angle PQR = 40^0

24.(i)Weight

(ii)large, large

25.(i)capacitor

(ii)resistor

(iii)lamp

(iv)switch

(v)variable resistance

26. (a)Efficiency is the ratio between the mechanical advantage and velocity ratio.

(b) velocity ratio = 35/0.5 = 70

Since, 0.04 = 70/MA, MA = 2.8

Then, 2.8 = 2200/F

F = 6160J

27.(a)Atmosheric pressure is the standard pressure used to measure the pressure of te atmosphere

(b) since P = density x height x g

= 13600kg/m^3 x 0.75 m x 10 N/m^2

Pressure = 102000 N/m^2

28.(a)Specific heat capacity is the amount of heat required to raise the temperature of unit mass of a substance by 1K.

(b) heat of metal = 500 x C x (100 – 21) = 39500C J

Heat of water = 200 x 4.2 x (21 – 15) = 5040 J

Heat gained = heat lost

39500 C x 5040

C = 7.837 J/g K

29.(a) – sum of clockwise moments equals to sum of anticlockwise moments.

- upward forces equals to downword force.

(b)-taking moments about R_1,

(R_2 x 300) = ((90 x 200)

R_2 = 60 N

Also, also upward force = downward forces

90 = 60 + R_1

R_1 = 30 N