MKALAMA DISTRICT COUNCIL

FORM TWO MOCK EXAMINATION 2025

PHYSICS MARKING SCHEME

1

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

@1Mark =10marks

2

i.	ii.	iii.	iv.	v.
C	E	G	A	F

@1Mark =5marks

3. **a**.

i.Do not overheat magnets
ii.Do not store or keep magnets near strong magnetic or electric fields. **@2Marks =6marks**
iii.Store magnets in pairs with the unlike poles facing each other.

b.

i.Magnetic recording media
ii.Credit debit and ATM cards **@1Mark =4marks**
iii.Common television and computer monitors
iv.Speakers and Microphones

4. **a.**

Magnetization	Demagnetization
Process of making magnet	Process of destroying the magnetism in a magnetized material.
4marks	

b.

i.If a permanent magnetism is heated or vibrated in the absence of an external field. **6marks**
ii. Randomly stroking one magnet with another can magnetise the magnet being stroked
iii.Repeated harmmering or dropping down the magnet.

5. **a**.

capacitor	Capacitance
Device used to store electric charge	Ability of a capacitor to store electric charge

4marks

b.

i.Paper or plastic capacitors
ii.Mica capacitor **3marks**
iii.Elecrolytic capacitor

c. “Like charge repel, unlike charge attract.” **3marks**

6. **a. Data given**

capacitance=0.5F

p.d= 18volts

amount of charge = required

from Amount of charge = CV

=0.5F x 18V

= 9C **5marks**

b **Data given**

Capacitance of capacitor C_1 = 5μF

Capacitance of capacitor C_2 = 10μF

Capacitance of capacitor C_3 = 15μF

From $1/C_T = 1/C_{1+} 1/C_{2+} 1/C_3$

$1/C_T = 1/5 + 1/10 + 1/15$

$1/C_T = 0.667$

C_T = 1.499 μF

Value of a single capacitor to replace is 1.499 μF **5marks**

7. **a.**

Data given.

VR = 5

Efficiency = 80%

Load = 200N

Effort = Required

From Efficiency =MA/VR X 100%

80 = MA/5 X 100

MA = 4

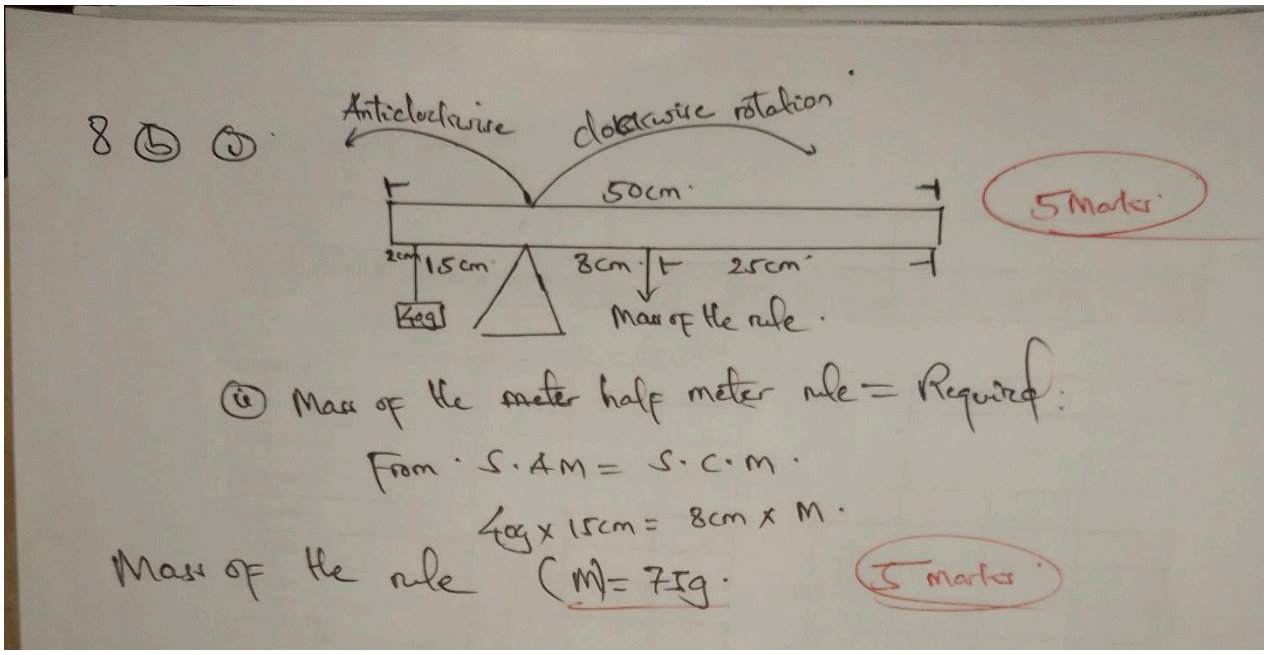
From MA = Load/Effort

4 = 200N/Effort

Effort = 50N **6marks**

b.Because some of effort applied is used to overcome frictional forces in the moving parts of the system. 4**marks**

8. **a. a long spanner produce large moment of force than short spanner**



9. **a.**

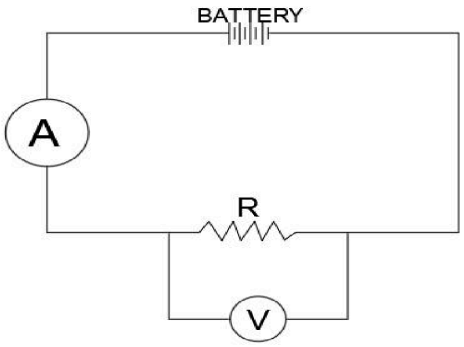
Data given
Load = 400N
Effort = 100N
MA = Required
MA = Load/Effort
400N/100/N
MA = 4. **4marks**

b. Data given
Distance moved by Effort = 10m
Distance moved by Load = 2m
MA= 4
VR= required
Efficiency= required
From VR = Distance moved by/Effort /Distance moved by Load
VR = 10m/2m
VR = 5 **3marks**
Efficiency = MA/VR X 100%
= 4/5 X 100%
Efficiency = 80% 3**marks**

10. **a.**

Ammeter
Voltmeter
Connecting wire **5marks**
Dry cell
Resistor

b.



5marks

c. .Ammeter is connected in series with the resistor to measure the current flowing through the resistor

Voltmeter is connected in parallel across the resistor to measure potential difference across it **5marks**