KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS

MANG'U HIGH SCHOOL
232/1
PHYSICS
PAPER 3
MARKING SCHEME

SCHOOLS NET KENYA
Osiligi House, Opposite KCB, Ground Floor
Off Magadi Road, Ongata Rongai | Tel: 0711 88 22 27
E-mail:infosnkenya@gmail.com | Website: www.schoolsnetkenya.com

MANG'U HIGH SCHOOL KCSE TRIAL AND PRACTICE EXAM 2016

Paper 3

MARKING SCHEME

1. a) f = 15 cm±2

b)

Object distance (u cm)	22	24	26	28	30	32	34
Image distance (vcm)	32.9	34.2	36.0	38.9	39.5	41.0	42.1
Magnification $\frac{v}{u}$							

- For u±0.2 cm values a ward 4 marks for all values within range. See accuracy above otherwise a ward ½ mark for each.
- For m award 2 marks for all values correct but 4- 5 values correct a ward 1 mark and less than 4 values correct a ward 0 marks.

c) Axes 1mk – both quantity and unit on V axis
Scale (1mk) simple and uniform
Plotting (2mks) atleast four correctly plotted points
Line (1mk) - line passing through atleast three correctly points.

d) Gradient/ slope = $\frac{1}{f}$

$$f = \frac{1}{slope}$$
$$= 15 \pm 0.2cm$$

PART B

ii) E=1.5±01
iii) V=1.4±0.1
iv) I = 0.12±0.01A
E-V=Ir
0.1 = 0.12 x 8
R = $\frac{0.1}{0.12}$
= 0.83Ω

Question 2
PART A

a) R = $60^0 \pm 1^0$
On presence of plain paper showing how r is got

Angle of incidence (Deg)	30	35	40	45	50	55	60
Angle (degree)	14	22	34	39	43	48	51
E = 90 - θ							

f) Axes 1mk – must be labeled
scale 1mk) – simple and uniform
plotting (1mk) – atleast four correctly plotted points curve (1mk)- passing through 3 points and smooth.
ii) $i^0 = 47^0$

PART B
a) G = 50±0.5cm
b) i) P = 67.3±0.5cm
ii) Y = 67.3 – 50
= 17.3 cm

iii) Clockwise moments = Anti clockwise moments
(50x- 17.3)+u = (100x 10)
U= 1000-865
=135 N