**232/3**

**PHYSICS**

**PAPER 3**

**MARKING SCHEME**

**QUESTION 1**

1. N=83🗸1
2. D=0.0116M(4d.p)
3. d=6.3🗸1
4. N🗸1/2

M=

1. Lo=50.0

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1mk | W(N) | 0 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.6 | 0.7 | 0.8 | 0.9 | 1N |
| 1mk | L(cm) | 50 | 51.2 | 52.4 | 53.6 | 54.8 | 56.0 | 57.2 | 58.4 | 59.6 | 60.8 | 62.0 |
| 2mk | e(CM) | 0 | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 | 12.0 |
| 2mk |  | 0 | 0.8333 | 0.4166 | 0.2777 | 0.2083 | 0.1666 | 0.1389 | 0.1190 | 0.1042 | 0.0926 | 0.0833 |

1. Axes=1/2mk well labelled unit a must.

Scale=1/2mk appropriate scale

Plots=2mks 8-11 plots correctly plotted

4-7 correctly plotted 1mk

Less than 4 - 0mks

Smooth curve -1mk

1. Slope=

T=

 =

T=1.3588N2CM2🗸



**QUESTION 2**

b)

1. EP=10.0cm0.2🗸1
2. EI=5.2🗸
3. N=
4. Refractive index

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 20 | 30 | 40 | 50 | 60 | 70 |
| 46 | 48 | 50 | 45 | 45 | 41 |

1. Axes-1mk-well labelled

Scale-1mk-appropiate scale

Plots-5-6 plots-2mks

 3-4plots-1mk

 0-2 -0mk

Two extrapolated lines-straight lines-1mk

1. Hmax=50.95cm
2. R=🗸1/2

=

=🗸1/2

