**3KNT FRATERNITY EXAMINATIONS**

**PHYSCIS PAPER 3 MARKING SCHEME**

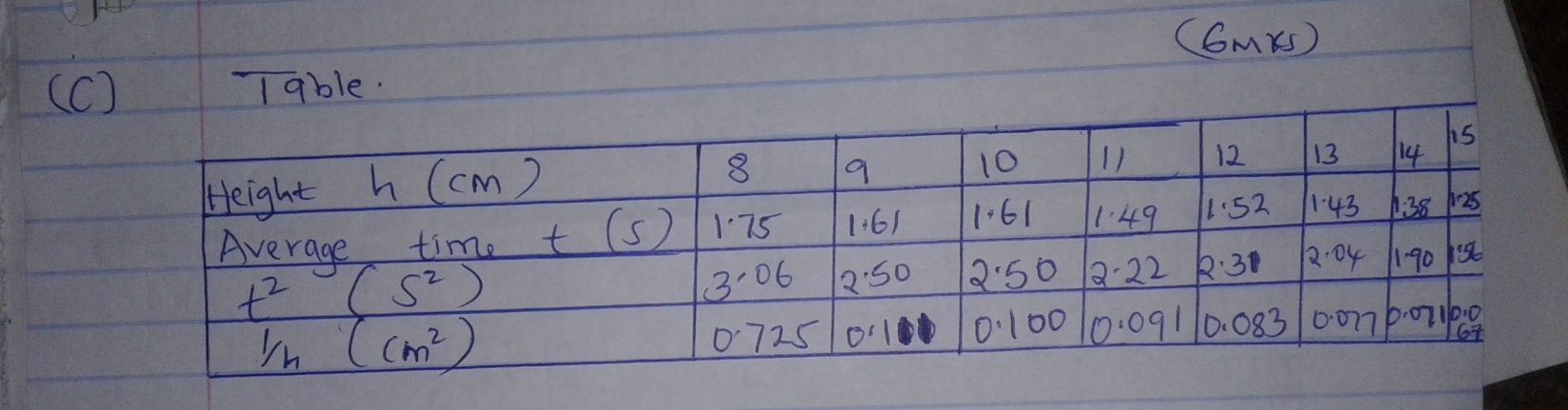
**Question 1**

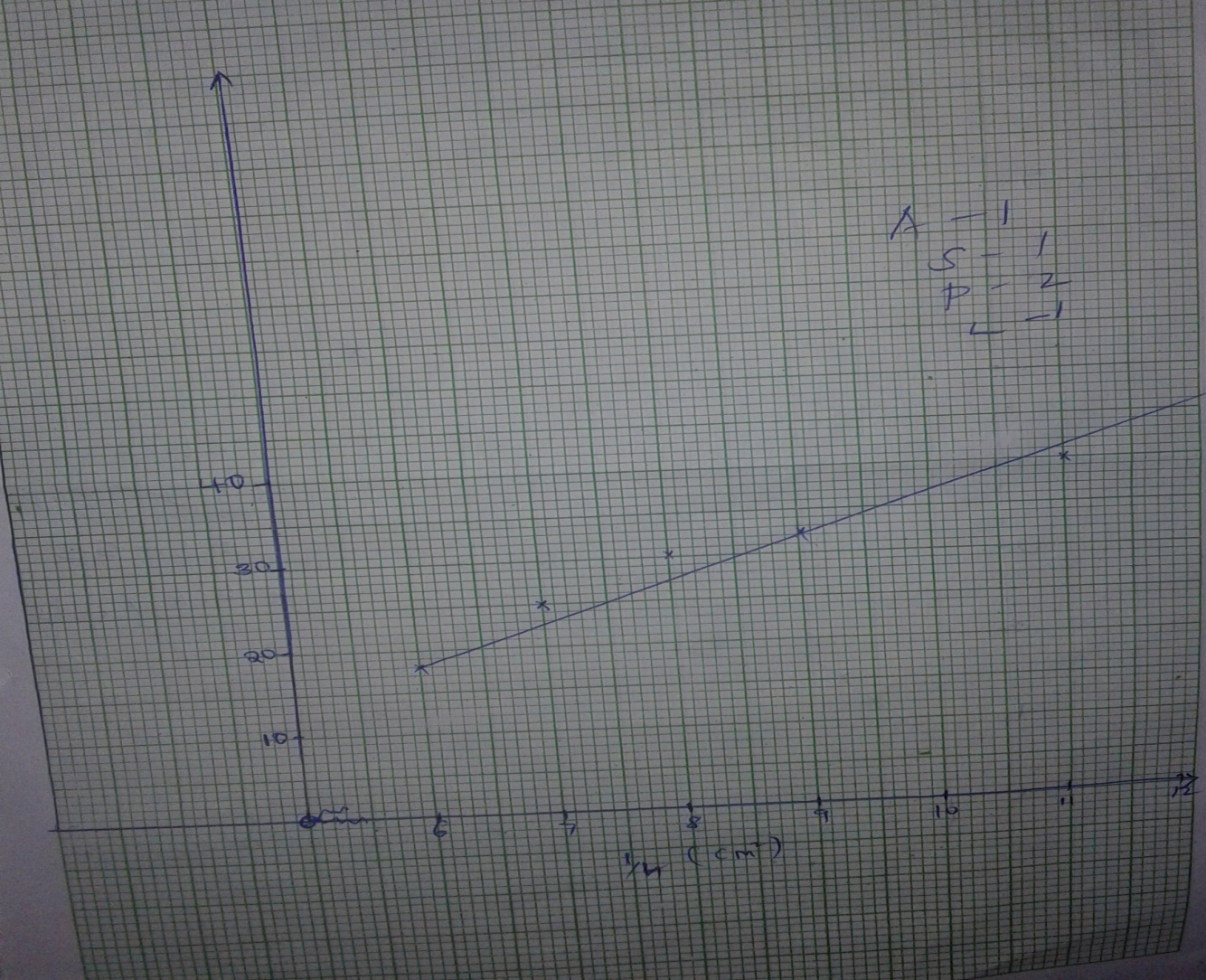
a)i) Diameter “d” = 1.7cm ± 0.1cm (1mk)

ii) Radius “r” = 0.85cm (1mk)

b)i) M = 5.8g ± 0.6g (1mk)

P = 0.4 X 5.8 (0.85)2 = 1.676 (1mk)



1c

d)i)

ii) S = 1.25 x 10-5 (3mks)

3.2 x 10-5

= 12.5 x 10-3

3.2

= 3.91 x 10-3

iii) G = Mr2 (5 – 1) (2mks)

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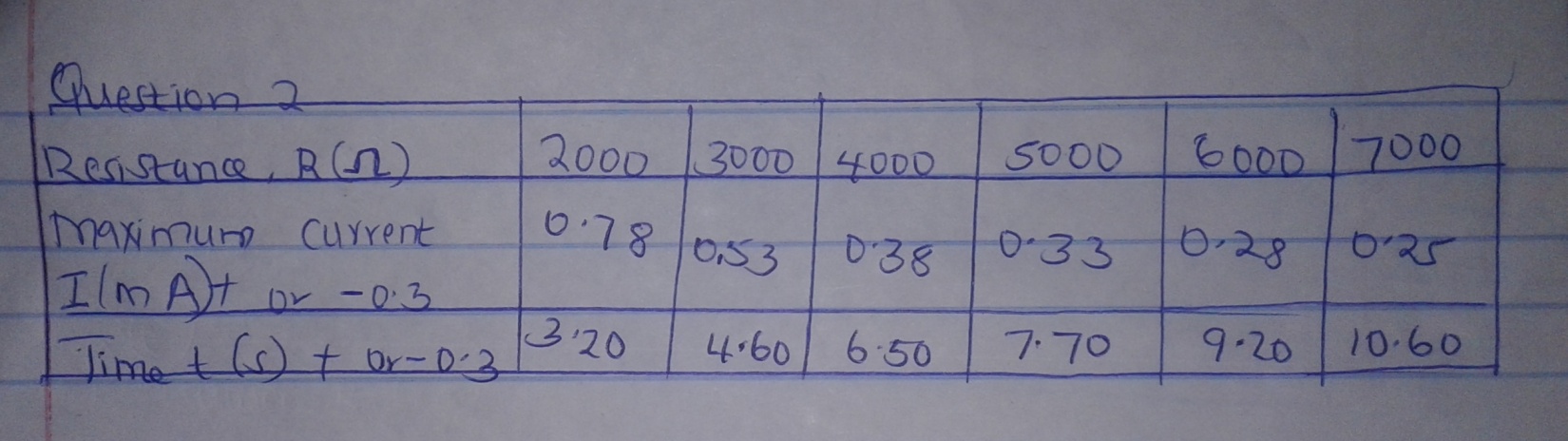
= 5.8 x 0.852 (3.91 x 10-3 – 1)

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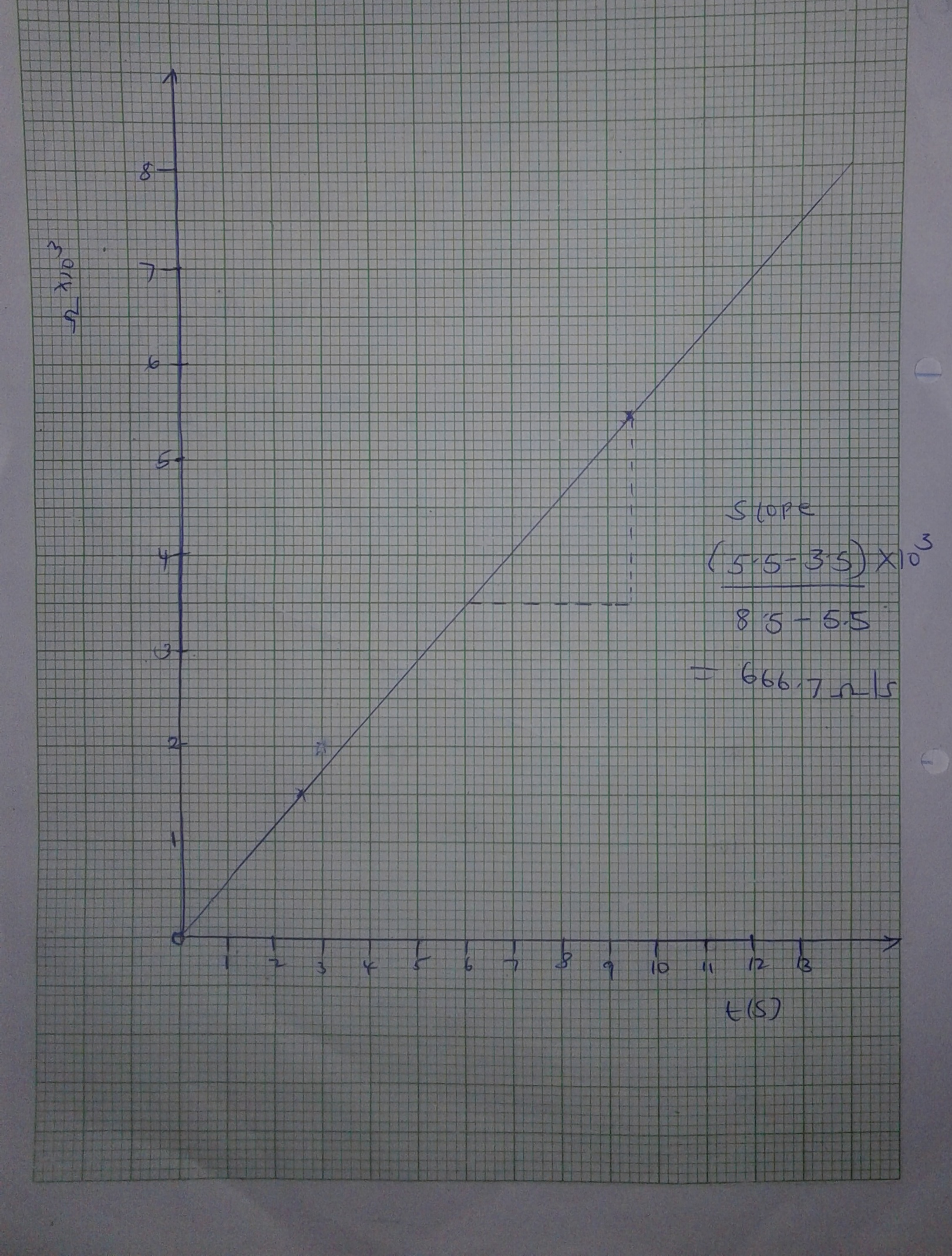
= 5.8 x 0.7225 x (0.1955 x 10-3 – 1)

= 4.19

**Question 2**



e)i) Graph of R ( ) against t (s)



ii) Slope = 666.7 /s

iii) Given R = t

constant k

= Slope

= 666.7

K =

K = 0.0015s/

f) To discharge the capacitor.