## **Experimental Competition**

5 May 2011

Student Code



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Page No.

Total No.

## Experimental Question 2: An Optical "Black Box"

## **ANSWER FORM**

a.	Expression for $\gamma$ :
b.	Choose the correct option (A, B, C or D):
c.	The angle $\varphi$ for the sample:
d.	Choose the correct option (A, B, C or D):
e.	The deflection angle $\delta_0$ for perpendicular violet light:
f.	The minimal deflection angle $\delta_{min}$ for violet light:
g.	Expression for the refractive index $n$ :
h.	The refractive index $n_v$ of the sample in violet light:

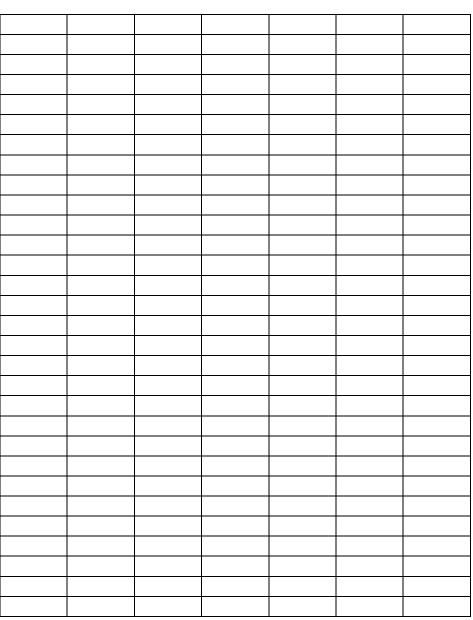
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**i.** Table for deflection angles  $\theta$  as a function of fringe number m:



j.	The tooth spacing $d$ :	

k.	<b>k.</b> The refractive index $n_r$ of the sample in the laser's red light:					