CMY 133 Report sheet

Experiment 6: Emission Spectra & Spectroscopy

Surname		**Initials**	
Student no.		**Group**	
Signature			
Date			

Pre-lab ex.	**/8**	
Report	**/18**	
Total	**/36**	**= %**

Pre-laboratory exercise: (No flow diagram)

1. *Make a labelled drawing of the compete electromagnetic spectrum.* **[4]**

2. *If an electron in Helium is excited to the n=4 level, how many emission lines will be seen in the emission spectrum. Show your reasoning using an appropriate diagram.* **[4]**

***Experiment**: The Mini Spectroscope (Schwabacher, 1999)*

Show your tutor your completed mini spectroscope

Construction mark: __ /2

Tutor signature: _____

1. *How is the piece of CD in your mini spec similar to a prism?* **[2]**

2. *What is the purpose of the slit in your Mini Spec?* What would happen if the slit was too large? Or too small? **[4]**

3. *Complete the following table by marking the correct colours using an (X)* **[6]**

		Colour observed							Type of spectrum	
	Light source	**Red**	**Orange**	**Yellow**	**Green**	**Blue**	**Indigo**	**Violet**	**Discrete**	**Continuous**
a	**Overhead fluorescent light**									
b	**Energy saver light**									
c	**Incandescent light**									
d	**Natural sunlight**									

4. *Compare natural light (d) to the artificial light sources (a,b,c) in terms of the colours observed with your Mini Spec and the Type of spectrum observed. Fully explain these findings.* **[2]**

5. *For a particular light source, some of the emission lines appear brighter (or more intense) than others. What is the significance of this finding?* **[2]**