Observations:

Least count of the spectrometer = 20''.

Readings for the measurement of angle of minimum deviation:

Reading of telescope position for direct image of the slit:
Left scale (θ_L): Circular Scale= 332° 40′ , Vernier: 24
Right scale (θ_R): NOT Required.

Sr. No.	Colour of light	Reading of telescope position Left scale (θ_1)		θ_1	$D_m = \theta_L \sim \theta_1$
		Circular scale	Vernier Scale		
1.	Violet I	27° 40′	15		
2.	Violet II	27° 20′	48		
3.	Blue	26° 20′	57		
4.	Green	24° 20′	29		
5.	Yellow I	24°	24		
6.	Yellow II	24°	21		
7.	Red	23° 40′	15		

Readings for measurement of prism angle A_0:

Sr. No.	Position of telescope for reflected slit from						$A_0 = \frac{a \sim b}{2}$
	Left face (a)			Right face (b)			
	Circular scale	Vernier Scale	a	Circular scale	Vernier Scale	b	
1.	37°	48		276° 40′	54		
2.	37°	46		276° 40′	56		

Calculation: …..

Error Analysis:

Please look at the file 'Error analysis….' and calculate the 'Maximum possible error'.

References:

1. ***Optics****, Eugene Hecht (Fifth edition by Pearson).*

2. ***Fundamental of Optics****, Jenkins and White.*

3. ***Principles of Optics****, B. K. Mathur (For discussion on spectrometer).*