**Q6.** A grating has 620 ruling/mm and is 0.5 mm wide. What is the smallest wavelength interval that can be resolved in the third order at =481mm?

**Given:-** N = 620 x 0.5=310 ; =481x10-9m ; m=3

**Formula:-**

**Solution:-** d = = = 0.5172 x 10-9 m

d = 0.5172 A

**Ans:- The smallest wavelength interval is 0.5172 A**