

Name: \_\_\_\_\_

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### **Analytical Chemistry II – Quiz (24<sup>th</sup> March, 2020)**

1) Write down the equation for Beer's law. Define all the variables and constants in this equation, and specify their units.

$$A = bc$$

*A* – absorbance (no units)

– molar absorptivity ( $L/(mol \cdot cm)$ )

*b* – optical pathlength (cm)

*c* – analyte concentration (M or mol/L)

2) What factors contribute to the broadening of spectral line widths in atomic spectroscopy?

- Line broadening due to uncertainty effect
- Doppler broadening
- Pressure (collisional) broadening