**GW: 06**

**Exercise 1:**

I) A strain of *Pseudomonas* isolated from soil is capable of growing on the following medium:  
Glucose: 16 g/L; (NH₄)₂SO₄: 1 g/L; K₂HPO₄: 7 g/L; KH₂PO₄: 3 g/L; MgSO₄·7H₂O: 0.1 g/L.

To study the bacterial growth of this strain, the medium was inoculated from a 24-hour culture of the strain grown on nutrient agar, then incubated under optimal temperature and pH conditions. The evolution of the bacterial count over time is illustrated in Figure 1.

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1. Identify the different growth phases on the graph above; interpret and describe each of them.
2. Determine the numerical values of three necessary and sufficient parameters to characterize this growth.
3. According to the experimental conditions, on what does the first phase of the curve depend?

**Exercise 2:**

Explain the following diagram

