

LESSON 3–TECHNICAL WRITING

EXERCISES-TEXT STRUCTURE:

QUESTIONS

1. Which of the following cover pages is the most appropriate?

SOLUTION: (b)

EXPLANATION: The (a) cover page does not have any logo or date. The (c) cover page does not have any logo or date and is not properly structured. The authors are usually placed in the bottom part of the cover page.

2. Which of the following tables is correct?

SOLUTION: Table 1

EXPLANATION:

- Table 2: the heading is not very specific. It does not reflect the entire content of the table.
- Table 3: the data do not have the same number of decimal.
- Table 4: does not include the units.

3. Which of the following figures is correct?

SOLUTION: Figure 3

EXPLANATION:

- Figure 1: The figure caption is too generic. It does not reflect the entire message of the figure.
- Figure 2: The figure caption does not indicate the meaning of the red and blue curves.

4. Correct the following technical text (**corrections in blue**):

"THERMAL CONDUCTIVITY: The thermal conductivity is a property that indicates the speed at which heat is transmitted in a material. When the conductivity is lower the heat will also be transmitted slower due to higher resistance. Thermal resistance is defined as the contrary of thermal conductivity. The heat transfer (Q) is defined by equation 1, where Q is the flow, K the conductivity and dT/dx the temperature gradient.

$$Q = k (dT/dx) \tag{1}$$

5. Correct the following technical text for a lab practicum.

Replace the words in bold:

ALCOHOL DISTILLATION

Introduction

The distillation is a process **through which** a liquid is heated until the most volatile components are converted into the vapor phase. **This phase** is cooled down to recover these components in liquid form via condensation. The main objective of the distillation is to **separate** a mixture of various components through the different volatility of **their components**, or to separate the volatile compounds from those that are not volatile. During evaporation or drying processes, the objective is usually to **separate** the less volatile component; the most volatile compound, mostly water, is disposed.

Objective

----Observe how the components are separated from the tequila using a simple distillation method. **This practicum will also help to better understand the lesson.**

Hypothesis

It is expected that the distillation process will enable the components with the lowest boiling to be separated more rapidly.

Results

- **The results show** that the boiling point of the tequila was 82 degrees centigrade.
- 25 y 10 ml of distillate **were collected.**
- **The distilled had a characteristic aroma, as the aroma of the first distillate was stronger than the second one.**
- The first distillate was more concentrated than the second one.
- **Both distillates had** quite a pleasant taste, but stronger than the tequila.
- Both distillates were transparent.

Conclusions

Our hypothesis showed that the distillation process allowed the expected separation of tequila, alcohol and water. The taste of both common and distillate tequilas were checked, observing significant differences between both.