Lab 2: Standards

**Brain Storming Task:**

You work for a research company as a member of the **Experimental Research Team**. Presently, the company is growing quickly and to exchange files, users must physically walk a disk or drive over to someone else if they wish to share files; this is inefficient. The company wants your team to develop a new way to exchange files electronically between to two computers using a cable. Today, is the first meeting of the team to discuss the problem. Assume, that due to some reason the team cannot meet, and the team leader has asked all the team members to send their suggestions before having a formal meetup. Being the team member submit your suggestions.



**Instructions:**

1. Identify the two most important topics or components that are necessary for communication to occur.
2. Discuss that why the proposed components are important.

**Encoding:**

1. Do a Google search and find the ASCII decimal and binary values for the capitalized first letter of your first name .
2. Write the decimal value \_\_72\_\_\_ . Write the binary value\_\_\_\_\_\_\_\_01001000\_\_\_\_\_\_\_\_\_\_
3. Write the binary value at the top of the chart. Write a bit between each vertical dotted line.
4. Use the chart to map the binary value using NRZI encoding (Non-Return to Zero Inverted). A change in voltage at the beginning of a clock cycle (vertical dotted lines) is a “1”. No change in voltage at the beginning of a clock cycle is a “0”. The horizontal dotted lines represent voltage 0.5 voltage levels. Map each letter to 6th horizontal line which represents +3 volts. Do not go below the hortizontal axis in mapping your value.
5. After mapping the value, answer the following questions:
   1. How many characters in total were transmitted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. How many bits in total were transmitted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. How many times did the signal change? (baud rate) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. What is the bit rate? \_\_\_\_\_\_\_\_\_

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| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
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**Standard Making Bodies**

Do a Google search and write the answers in the space below. Use your own words. DO NOT copy and paste the answers. The answers are all one line of text.

1. **International Organization for Standardization (ISO)**
2. What is the web site address for the ISO?

Answer: the Web site address for ISO is [**www.iso.org/home.html**](http://www.iso.org/home.html)

1. What type of standard making body is it and who are its members?

Answer: It Is International organization and non-governmental organizations. There are many members in this organization. More than 162 countries are involved in this organizations. The purpose of the agenda is to promote the international trade. Beside that, there functions are coordinating, developing and many more.

1. What is an example of an ISO standard?

Answer: There are many one, like safety management, control the Information security quality, check the food quality.

1. **Institute of the Electrical and Electronic Engineers (IEEE)**
2. What is the web site address for the IEEE?

Answer: the web site address for the IEEE is <https://www.ieee.org/>

1. What type of standard making body is it and who are its members?

Answer: IEEE is the world largest professional making body. Apart from that it is private as well as Industrial organization. There are many members who are associate with this industry are the members.

1. What is an example of an IEEE standard?

Answer: The examples of an IEEE standard are ethernet, WLAN means wireless local area network.

1. **International Telecommunications Council (ITU-T) Telecommunications**
2. What is the web site address for the ITU?

Answer: The web site address for the ITU is <https://www.itu.int/en/Pages/default.aspx>

1. What is the web site address for the ITU-Telecom?

Answer: The web site address for the ITU-Telecom is <https://www.itu.int/en/ITUTELECOM/Pages/default.aspx>

1. What type of standard making body is it ITU-T and who are its members?

Answer: It is governmental as well as international organizations. This organization is for data transmissions for X-standards as well as Phone lines. In this organization there are many companies as well as many member states like 900 and 193 respectively,

1. What is an example of an ITU-T standard?

Phone lines as well as cybersecurity

1. **What is the name of Canada’s standard organization?  
   Answer: The name of Canada’s standard organization is Standards Council of Canada SCC.**
2. What is its mission or mandate?

Answer: There are total three roles or mission in SCC. The first and primary is giving the platform to all national business. In addition, to develop their particular country. Second is to for safety and health purpose. Lastly, standard making bodies to bring their standards. In short, this organisation wants volunteers to involve in some activities which is beneficial to their country. Apart from that, to plan some important strategies.

**Grading:**

* learnname\_Lab2\_StandardBodies.docx

Remember replacing **learnname** with **your name** for submission.

Submit using the Lab2 Submission link under MySeneca\Graded Work