**NOTES / COMMENTS / DRAWINGS FROM YOUR EXPERIMENT**

c) **Table 1**

|  |  |
| --- | --- |
| Analog Input | Digital Value |
| -5V |  |
| -4V |  |
| -3V |  |
| -2V |  |
| -1V |  |
| 0V |  |
| 1V |  |
| 2V |  |
| 3V |  |
| 4V |  |
| 5V |  |

d) Resolution =

 Step size =

h) Your comments:

i) Graph for Table 1:

f) **Table 2**

|  |  |
| --- | --- |
| Analog Input | Digital Value |
| -5V |  |
| -4V |  |
| -3V |  |
| -2V |  |
| -1V |  |
| 0V |  |
| 1V |  |
| 2V |  |
| 3V |  |
| 4V |  |
| 5V |  |

g) Resolution =

 Step size =

Graph for Table 2:

l) **Table 3**

|  |  |
| --- | --- |
| Analog Input | Analog Value |
| -5V |  |
| -4V |  |
| -3V |  |
| -2V |  |
| -1V |  |
| 0V |  |
| 1V |  |
| 2V |  |
| 3V |  |
| 4V |  |
| 5V |  |

n) **Table 4**

|  |  |
| --- | --- |
| Analog Input | Analog Value |
| -5V |  |
| -4V |  |
| -3V |  |
| -2V |  |
| -1V |  |
| 0V |  |
| 1V |  |
| 2V |  |
| 3V |  |
| 4V |  |
| 5V |  |

Your comments:

Your comments:

**QUESTIONS**

1. For a 10­bits ADC with 5V reference voltage, what is the resolution?
2. Let us assume that we have two digital audio files, both containing your favorite song (i.e. fav\_song\_16bit.wav and fav\_song\_24bit.wav). Let both have the same 48kHz sampling rate. Their bit depths (the number bits for each sample), however, are 16- and 24-bits respectively. What would be the differences (size, accuracy, quantization noise etc.) between these files? Explain briefly.

**CONCLUSION**

*Write down a brief comment and conclusion about the experiment.*