Lesson 3

Introduction - Digital Audio Basics

STUDENT NAME: _Reggy Luck_

STUDIO NAME: _Swing House_

NAME OF MENTOR(S): _Warren Huart_

1. The _SAMPLING RATE_ is the number of measurements taken from an analog signal in one second. (in this lesson in this manual)

2. When we allow frequencies that are twice our sample rate to enter the sampling process, we get _ALIAS_ , or sounds that are actually harmonic distortion. (page 206)

3. _QUANTIFICATION_ is the way Digital Audio Workstation (D.A.W.) records the volume component of the digital recording or sampling process. (page 203)

4. _DITHER_ is applied to the process to reduce quantization errors and increase in noise and/or fuzziness that could creep into a bitstream to make it sound more natural. (Page 208-209)

5. List and explain in detail the Nyqist theorem. (page 205)

6. The basic theory of digital audio is processed, stored, and reproduced over time through the use of a _BINARY NUMBER SYSTEM_. (page 199)

7. _MP3_ is the most common type of compression format for e-mailing audio. (page 377-378)

8. When we rip a CD to MP3, we reduce the size _90_ percent. (page 26, Recording Connection Workbook)

→ THE SAMPLE RATE HAS TO BE 2x THE HIGHEST FREQUENCY THAT IS TO BE RECORDED