EXAMINATIONS

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Time: 3 hours
Subject: MUS 508 E – Music Technology
Marks: 100

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INSTRUCTION

Answer all questions
1. Describe a transducer. [2]

2. What is the audio frequency spectrum of human hearing (answer in Hz)? [2]

3. Describe each element of a typical recording studio signal chain comprising of the following equipment, and explain what each element or piece of equipment does:
   a. Microphone
   b. Microphone preamp
   c. A/D converter
   d. DAW
   e. D/A converter
   f. Audio Monitoring [12]

4. Discuss the differences between a Dynamic and a Condenser microphone. [6]

5. Define what a transient is. [2]

6. In audio, what is meant by the term headroom? [2]

7. Describe the process of overdubbing (multitrack recording). In your description, discuss advantages and disadvantages of this process. [8]

8. What is a software synthesizer? How is it different from a hardware synthesizer? [4]


10. What is a compressor? Give an example where compression could be used? [4]
11. Explain the process of Equalisation? [2]

12. List two common uses for equalisation [2]

13. MIDI is an acronym which stands for what? [2]


15. Frequency is measured in:
   a. Octaves
   b. Milliseconds
   c. Samples
   d. Hertz
   e. Millimetres [1]

16. What is panning? How can panning be used in mixing? [2]

17. Identify the following microphone polar patterns: [3]

18. Name and describe 3 commonly used stereo recording microphone techniques. Explain which type of microphones should be used in each case, and describe the necessary placement for each technique. [12]

19. Discuss the about 5 areas of which a music technologist in the music industry could find themselves working is. Consider all aspects and roles of music and sound design. [20]
20. Name the pieces of equipment that make up a basic PA system.

21. When editing in a DAW, what 4 tools are likely to get used?