(Note: You can use either Chinese or English to answer the questions)

(Note: 可使用中文或英文答題)

1. Please explain the following terms: (請解釋下列名詞): (a) Interval (b) Scale (c) Musique Concrète (d) Electroacoustic Music (e) Spectrum. (5%)

2. What are the similarities and differences between the methodologies with acoustic instruments and the electrical (or digital) instruments to compose music? (試說明以傳統聲響樂器與電子（或數位）樂器創作音樂時，在方法上有何相似與相異之處？) (5%)

3. What are the musical elements? What are the elements to describe each sound (or audio)? Which elements belong to the physical issues? Which elements belong to the psychological issues? Please write down the units for the sound related elements. (試說明音樂之所有元素為何？用以描述聲音之所有元素為何？哪些元素屬物理範疇？哪些元素屬心理範疇？請寫下聲音相關各元素之單位。) (10%)

4. Briefly describe the following musical terms: (請簡述下列音樂名詞): (10%)
   - adagio
   - mezzoforte
   - pianissimo
   - accelerando
   - ritardando
   - rallentando
   - presto
   - com moto
   - andante
   - allegro
   - phrase
   - cadential formula
   - theme and variations form
   - serialism
   - common practice style
   - Baroque Period Music
5. Please transpose the following score into the key of A flat (請將下譜轉至降 A 之調性).
   (5%)

   \[ \text{譜} \]

6. Based on the following score, please write the notes above F to construct the intervals of
   (由下譜所示，請寫出在 F 音之上構出下面之音程) (1) major seventh (2) perfect fifth
   (3) augmented third (4) diminished fifth (5) minor sixth (10%)

   \[ \text{譜} \]

7. Please write down at least ten notes of the harmonic series (fundamental tone not included)
   based on the note D as the fundamental tone in the following score.
   (請寫出由下譜所示之 D 音為基音之十個音以上（不含基音）的泛音列。)(5%)

   \[ \text{譜} \]

8. Use G note as the bass note in the following score to construct the chords (in root position)
   of (以下譜所示之 G 音為低音構出下列原位和絃) (1) major triad (2) minor triad (3)
   augmented triad (4) diminished triad (5) dominant seventh chord (10%)

   \[ \text{譜} \]
9. Use E note as the bass note in the following score to construct the ascending scales of (以下為低音構造下列上行音階) (1) major (2) natural minor (3) Dorian mode (4) Chinese pentatonic “Gong” mode (宮調式) (5) whole tone (5%)

\[ \text{\includegraphics[width=0.5\textwidth]{image1.png}} \]

10. Please use notes G, A, E, F (see the following score) and their octaves to compose a piece in four bars. You can select any harmonic progressions or polyphonic lines to compose it in any kind of style.

請以下為之G, A, E, F及其八度上各音來創作四個小節之音樂。可採用任何風格，使用任何之和聲進行方式或多聲部線條來創作你的音樂。(5%)

\[ \text{\includegraphics[width=0.5\textwidth]{image2.png}} \]

11. Name four digital audio transformation techniques commonly used during the composition of computer music works.

請寫出電腦音樂創作上常用的四種數位聲音轉換技術。(5%)

12. Refer to the following charts, please draw the waveform of a tuning fork vibration in the time-domain chart, and the spectrum (frequency-domain chart) of the open A string for a violin playing (with bowing).

請參考下圖畫音叉振動之時域圖，以及小提琴空弦A弦上用弓拉奏時之頻譜(頻域圖)。(5%)
13. List the music technology research areas that you are interested in.
   試列出你有興趣的音樂科技研究領域。(10%)  

14. Write a short essay describing why you want to obtain a Music Technology Degree.  
   (You may incorporate an expansion of the answer to question #13.)  
   寫一段短文描述你想要獲得音樂科技學位之原因。 (可與第13題合併擴充來答題)  
   (10%)