



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2013/2014**

**THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF ARTS (MUSIC) WITH INFORMATION  
TECHNOLOGY  
(MAIN CAMPUS)**

**AMU 310: ACOUSTICS I**

*Date: 15<sup>th</sup> July 2014*

*Time: 11.00 - 1.00 pm*

**INSTRUCTIONS:**

- Answer question ONE and any other TWO.

**AMU 310: ACOUSTICS I**

**INSTRUCTIONS:** Answer Question **ONE** and any other **TWO**

1. Explain how sound waves are propagated and transmitted. (30mks)
  
2. Using a labeled diagram, describe how a normal human ear perceives sound. (20mks)
  
3. Explain the following terms as used in acoustics:
  - a) Loudness (sones) (10mks)
  - b) Sound masking (10mks)
  
4. a) what is noise in acoustics (05mks)  
b) Explain the importance of noise in electronic sound production. (15mks)
  
5. Discuss how the following terms are used in frequency analysis:
  - a) Spectrum analysis (10mks)
  - b) Analogue and digital frequency filter (10mks)