



# MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SPECIAL NEEDS EDUCATION  
AND EARLY CHILDHOOD EDUCATION

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF  
EDUCATION (SPECIAL NEEDS EDUCATION)

ESN 455: AUDIOLOGY AND ELECTROACOUSTICS

DATE: 13/12/2017

TIME: 8.30-10.30 AM

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## INSTRUCTIONS

Answer Question One and Any Other Two Questions

1.
  - a) Define the following terms
    - i. Audiology (2 marks)
    - ii. Speech (2 marks)
    - iii. Speech production (2 marks)
    - iv. Speech perception (2 marks)
  - b) Explain what is an atoscope and how it is used (2 marks)
  - c) Differentiate between reflection and diffraction (4 marks)
  - d) Outline the three main parts of the ear (3 marks)
  - e) Describe what is an audiometer (3 marks)
  - f) Explain how bone conduction takes place in human being (4 marks)
  - g) State the four qualities of a good ear mould (4 marks)
  - h) Describe what is a hearing aid (2 marks)
2. Discuss the benefits of a hearing screening programme within a school for the hearing impaired (20 marks)

3. Describe how sound conduction takes place from the source up to the brain (20 marks)
4. Discuss hearing levels classified according to the degree of hearing loss (20 marks)
5.
  - a) Explain behavioral characteristics that may hint that a learner has some hearing problems (10 marks)
  - b) Develop a hypothetical checklist for hearing impairments (10 marks)