



# MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SPECIAL NEEDS EDUCATION

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

ESN 455: AUDIOLOGY AND ELECTROACOUSTIC

DATE: 3/5/2019

TIME: 8.30-10.30 AM

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## INSTRUCTIONS

Answer Question One and Any Other Two Questions

### QUESTION ONE (30 MARKS)

- a) Define the following terms as used in audiology
  - i. Audiology (1 mark)
  - ii. Hearing (1 mark)
  - iii. Amplification (1 mark)
  - iv. Hearing loss (1 mark)
- b) Differentiate between speech production and speech perception (4 marks)
- c) Describe what Educational Audiology is (2 marks)
- d) Explain the external ear canal in a human being (4 marks)
- e) State the three small bones of the ear in order starting with the one attached to the tympanic membrane (3 marks)
- f) Describe the function of the vestibular system (2 marks)
- g) Explain what an audiometer is (3 marks)
- h) Explain the following terms as used in audiology
  - i. Attenuation (2 marks)

- ii. Threshold of hearing (2 marks)
- i) Describe the function of an audiogram (4 marks)

**QUESTION TWO (20 MARKS)**

Discuss sound conduction from the source up to when it gets to the brain in the hearing process

**QUESTION THREE (20 MARKS)**

Describe the auditory system in a human being and clearly show the function of each part.

**QUESTION FOUR (20 MARKS)**

Discuss the hearing levels classified according to the degree of hearing loss

**QUESTION FIVE (20 MARKS)**

Explain factors that affect speech reception and production