

First Year MASLP Degree Examinations - November 2013**PSYCHOPHYSICS OF AUDITION****Time: 3 Hours****Max Marks: 80**

- Answer all questions

Essay**(5x16=80)**

- 1 What is the nature of frequency resolution in cochlea. What factors influence it. Discuss the effect of middle ear and cochlear pathology on the perception of loudness. (4+4+8)
- 2 Describe how pitch discrimination in complex tones is achieved. What problems will individuals with hearing impairment have in pitch discrimination. What are adaptation and fatigue. How do you study adaptation. What are the neurophysiological processes underlying adaptation. (4+4+2+3+3)
- 3 What are the mechanisms of neural integration of inputs from the two ears (binaural processing). What is the effect of NIHL on gap detection. What is the significance of poor gap detection thresholds for speech discrimination. (8+4+4)
- 4 What is localization and lateralization. Are they different or same. Justify your answer. Briefly trace the development of localization in children. What is the effect of cochlear hearing loss on auditory filters. Explain the rationale of TEN test. (2+2+4+4+4)
- 5 Localization of simple tones is different from localization of complex tones. Justify this statement with empirical evidence. Describe the effect of two ear-level hearing aids on binaural hearing. Add a note on the usefulness of CROS aids in facilitating binaural hearing. (8+4+4)