

**SECOND YEAR M.A.S.L.P. : SUMMER - 2018**

**SUBJECT: HEARING DEVICES**

Day: **Saturday**  
Date: **23/06/2018**

**S-2018-3555**

Time: **10.00 AM TO 01.00 PM**  
Max. Marks: 80

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw diagrams **WHEREVER** necessary.
- 4) Answers to each section should be written in the **SEPARATE** answer book.
- 5) Answer not written, in the appropriate answer sheets will not be assessed.

**SECTION-A**

- Q.1** Attempt any **FOUR** out of **SIX**: **(60)**
- a) With neat labeled block diagram discuss the structure and functioning of various components of BAHA, Middle ear implants and Brainstem implants
  - b) Explain the need of subjective procedures of hearing aid fitting despite the availability of objective procedures? Discuss with reference to children as well as adults.
  - c) Describe the various components of cochlear implants in detail including the various types of internal and external components available.
  - d) Discuss the various parameters measured through EAC measurement as per the international standards for BTE hearing aids.
  - e) What are the ALD? How are they classified? Which ALD provides sound enhancement to the best extent and why?
  - f) What is digital signal processing? How does it work in hearing aids? What are its advantages?

**SECTION-B**

- Q.2** Write short notes on any **FOUR** of the following: **(20)**
- a) Tele-rehabilitation
  - b) Tinnitus maskers
  - c) ACE and HI-RES 120 speech processing strategy in cochlear implant
  - d) Candidacy criteria for brainstem implant
  - f) Application of IIR and FIR filters
  - g) Candidacy criteria of cochlear implant

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