

**First Year BASLP Degree Supplementary Examinations March 2020
Biomedical Instrumentation and Acoustics
(2016 Scheme)**

Time: 3 hrs

Max marks: 80

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(4x10=40)

1. Write in detail different types of active and passive electronic devices.
2. Explain the principle, types and functioning of amplifier technology used in hearing devices.
3. Explain logic gates, types and its applications. Briefly explain about counters and flip flops
4. Discuss briefly the different types of filters used in any three instruments related to speech and hearing.

Short Notes

(5x5=25)

5. Principle of operation of LED diode
6. Different types of DC power supplies
7. Loudspeaker and its uses
8. Various controls in audiometer
9. Working of OAE analyzer

Answer Briefly

(5x3=15)

10. Define PNP Transistor
11. Define Sabine's formula
12. Explain logic gates
13. Explain pre-amplifiers
14. List some safety measures in the maintenance of biomedical instruments
