

Q.P. Code: 104015

Reg. No.:.....

First Year BASLP Degree Examinations September 2017

BIOMEDICAL INSTRUMENTATION AND ACOUSTICS

Time: 3 hrs

Max marks: 80

- Answer all questions
- Draw diagram wherever necessary

Essays

(4x10=40)

1. With the help of block diagram explain the working of DC power supply.
2. What is a sound level meter. With the help of block diagram explain the working of sound level meter. Add a note on the application of sound level meter.
3. What is a flip flop. Explain the working of SR Latch with help of circuit diagram.
4. What is a transducer. Explain the general characteristics of a microphone. Explain condenser microphone in detail with relevant diagram.

Short notes

(5x5=25)

5. Feedback systems
6. Speech spectrograph
7. Analog to digital converters
8. Induction loop system
9. Artificial ear

Answer briefly

(5x3=15)

10. Loudspeaker enclosures. Which type of loudspeaker is used in free field audiometric testing. Illustrate how it works.
11. Mention the use of following electronic component in hearing aid
 - Potentiometer
 - Inductor
 - Capacitor
12. Convert the hexa decimal number AB to its equivalent binary number
13. With reference to the block diagram of digital hearing aid, explain the role of digital to analog converter.
14. Distinguish between analog and digital signals.
