

**Q.P. Code: 104015**

**Reg. No.:.....**

**First Year BASLP Degree Supplementary Examinations March 2018**

**BIOMEDICAL INSTRUMENTATION AND ACOUSTICS**

**Time: 3 hrs**

**Max marks: 80**

- Answer all questions
- Draw diagram wherever necessary

**Essays**

**(4x10=40)**

1. What is switch mode power supply. Explain in detail the working principle of SMPS with relevant block diagram.
2. What are filters. How are they classified. Explain all passive filters with the help of their frequency responses.
3. What are the types of memory in a computer. Bring out the difference between volatile and nonvolatile memory units in computer.
4. Mention all the types of analog to digital converters. Explain any one analog to digital converters in detail.

**Short notes**

**(5x5=25)**

5. Digital signal processing
6. Immittance meter
7. Hard disk
8. Uninterrupted power supply
9. Counters

**Answer briefly**

**(5x3=15)**

10. List the difference between transistor's and FET's
11. Convert 128 (10) to Hexadecimal
12. How does a diode convert AC to DC. Draw circuit diagram with relevant waveforms.
13. State and explain Sabine's formula.
14. Explain the role of loudspeaker enclosures.

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