S.No. M21406 Course.Code: 27317106

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University)
BASLP DEGREE EXAMINATION - April 2019
First Semester
ELECTRONICS AND ACOUSTICS

Three Hours Maximum: 100 marks

SECTION - A

I. Fill in the blanks : (6x1=6)

1. _____ is an electrical appliance which is designed to deliver a constant voltage to a load regardless of the changes in the input power supply.
2. A _____ is a structure that directs and controls electric currents, presumably to perform some useful function.
3. Expand FFT: _____.
4. _____ indicates the sensitivity of microphone to the sounds arriving at different angles about its central axis.
5. _____is the process of analyzing and modifying a signal to optimize or improve its efficiency or performance.
6. _____ is the process used to maintain accuracy of an instrument.

II. Answer briefly : (8x2=16)

7. Voltage stabilizer.
8. Define voltage.
9. Linear circuits.
10. Define echo.
11. Define Hex code.
12. Define omnidirectional microphone
13. Define sampling.
14. Define quantization noise.

III. Answer briefly : (6x3=18)

15. List any 3 passive electronic components.
16. A 6.0V battery is connected to a LED with a current of 2.0 amperes flows. Find the resistance to be offered to the circuit.
17. Define vibration and its types.
18. Difference between first order and second order microphones.
19. Difference between IIR and FIR
20. Draw block diagram of audiometer.

SECTION – B

IV. Write short notes on any SIX: (6x5=30)

21. Specifications of power supply.
22. DC power supply.
23. Characteristics of vibration.
24. Pick up pattern of microphones

(p.t.o)

25. Types of loudspeaker.
26. Advantages of digital over analog signal processing.
27. Digital filtering.
28. Immittance audiometer

SECTION – C

V. Answer any TWO of the following : (2x15=30)

29. What are transistors? Explain the types of transistors. Elaborate on its application in the field of audiology.
30. Considerations for construction of audiometric rooms.
31. What are analog and digital signals? How does a digital signal processor work?
32. Applications of DSP in the field of speech and hearing sciences.

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