ELECTRONICS SYSTEM DESIGN

1. What is need of various tests to be carried out in product development stage. How these tests carried out.
2. What is maintainability? Explain various steps towards maintainability.
3. Brief on error budget analysis of ADC with case study.
4. Explain Signal Conditioning circuit as design point of view with example.
5. Write short note on :i) LIN Bus ii) Flex-ray Bus.
6. Explain DAC and relay interfacing to microcontroller. Also write algorithm.
7. Explain different constructs of regular programming using neat diagram.
8. What is the need of software testing? State and explain different tools used for software testing
9. Draw circuit of signal stage MOSFET common source amplifier & perform AC & DC analysis.
10. Explain how simultaneous state & timing mode of Logic Analyzer helps in fault finding of high speed digital design.
11. Explain Significance of Band width. sampling rate, probe impedance, memory depth in DSO.
12. Draw circuit diagram of transistor LC Oscillator & explain how you can make use of DC or operating point analysis & transient analysis to diagnose the circuit.
13. Carry out error budget analysis of Opamp.
14. Write short note on-i) Choice Between Assembly & Higher-level Language ii) Goals of Software Design.
15. What are the features of cross compiler used for programming the micro controller.
16. Explain rules of PCB design for Shielding & Guarding in precision circuits.
17. Explain rules of PCB Design for mixed Signal circuits.