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Electronics Sample Questions Set 1 NET, IAS, State-SET (KSET, WBSET, MPSET, etc.), GATE, CUET, Olympiads etc.

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1. What is D-FF?
2. What is the basic difference between Latches and Flip flops?
3. What is a multiplexer?
4. How can you convert an SR Flip-flop to a JK Flip-flop?
5. How can you convert an JK Flip-flop to a D Flip-flop?
6. What is Race-around problem? How can you rectify it?
7. Which semiconductor device is used as a voltage regulator and why?
8. Explain an ideal voltage source?
9. Explain zener breakdown and avalanche breakdown?
10. What are the different types of filters?
11. What is the need of filtering ideal response of filters and actual response of filters?
12. What is sampling theorem?
13. What is impulse response?
14. Explain the advantages and disadvantages of FIR filters compared to IIR counterparts.
15. What is CMRR?
16. Explain half-duplex and full-duplex communication?
17. Which range of signals is used for terrestrial transmission?
18. Why is there need for modulation?
19. Which type of modulation is used in TV transmission?
20. Why we use vestigial side band (VSB-C3F) transmission for picture?
21. When transmitting digital signals is it necessary to transmit some harmonics in addition to fundamental frequency?
22. For asynchronous transmission, is it necessary to supply some synchronizing pulses additionally or to supply start and stop bit?
23. BPSK is more efficient than BFSK in presence of noise. Why?
24. What is meant by pre-emphasis and de-emphasis?

25. Explain 3 dB cutoff frequency? Why is it 3 dB, not 1 dB?
26. Explain ASCII, EBCDIC?
27. How to manufacture the CMOS inverter?
28. What are the advantages of using C band for satellite communication?
29. What frequency bands are used in Satellite Communication?
30. what is the difference between latch and flipflop? what is the main difference between 8085 and 8086 processors?
31. What is the purpose of the package around a microprocessor silicon die?
32. How can we identify how many states the ripple counter is having by looking at the figure as it can also have some invalid states?
33. Design gray to binary code converter?
34. What is a BCD? What are its advantages and disadvantages? Why is an excess-3 code is called an unweighted code?