

SAIL Latest Job Interview Placement Paper (Technical, Reasoning, English & Aptitude)

Company Name : SAIL

Type : Fresher, Job Interview

Questions:

1. where does a body have least weight?

- a) at the equator
- b) at the poles
- c) at earth's center
- d) none of these

2. what is the millman's theorem?

3. what happens if a dc motor is fed an ac signal?

4. calculate electron mobility.

5. power MOSFET is voltage controlled or current controlled?

6. if u want a 640 k RAM, what specification should u specify in the drive?

7. max efficiency of a class a amplifier?

8. what r resistors in IC made of?

9. 6 girls and 6 bos sitting randomly in a line. what probability of girls being together?

10. what is the prob. of two friends having birthdays in same month?

11. $(D^2 + 4)y = kx$ what if PI?

12. $\lim_{x \rightarrow \infty} \sin x/x$

13. express $x/(x+1)$ as taylor's series

14. principle of jet engine

15. why hydraulic systems used ina aircrafts instead of electrical?

16. steel + ? = corrosion-resistant material?

17. what happens to speed of em wave as frequency increases?
18. which char. of em wave does not change when it travels from one medium to another?
19. circuit given. find attenuation in db.
20. circuit given. how much feedback?
21. $(s-1)/(s+1)$ is high pass filter/ low pass filter?
22. fastest logic family among rtl, dtl, ttl?
23. in common emitter config. change in i_C on changing v_{BE} ?
24. what happens if gate voltage of an ON scr is decreased?
25. fermi level change with temperature in n type semiconductor?
26. mosfet has threshold voltage 1v when n+ polysilicon is used in gate. what is threshold voltage when polysilicon used is of n+ type?
27. simple ckts using zener diode.
28. what is the p+ substrate in an isolated pn junction ic connected to?
29. opamp circuit given. open loop gain=100. closed loop gain=?
30. which type of parameters(h/y/z) suitable in particular application?
31. given parallel LC ckt. find angle between currents in branches at resonance.
32. what is Q of series RLC ckt? (voltage gain/ admittance etc.)
33. resonant freq of parallel RLC ckt. ?
34. thin metal foil inserted between capacitor plates. foil connected to one plate. change in capacitance?
35. ques on reflection of em wave at air= dielectric interface. dielectric const=9
36. what is brewster's angle?
37. why microwave freq not used for ionospheric propagation?
38. uhf range?

39. freq range used in satellite communication?

40. which ionospheric bands used for commercial purposes?

41. question on transmission line impedance matching?

42. flip- flop d, t 43. convert 32 k pulses to 1 hz pulses using decade counters etc.

44. ques on sets and relations

45. integration

46. rank of matrix

100 technical questions in 1 hr. +1/-.25

(Section 1): 150 general questions in 1.5 hr. +1/-.25

(Section 2): section 2 consists of:

a. general awareness (history, geography, civics, economics- basic on india)

b. english (passage, synonym, antonym, grmmatical error detection etc)

c. reasoning

d. apti all sections' and all parts of sec 2's cut-off should be cleared.

Some ques have all incorrect answers. beware don't stick to difficult questions, move on. many numericals, skip difficult ones.
