

# **SAIL Placement Paper, Technical 2010**

**What is the main different between distribution transformer and power transformer?**

**Where manning formula used**

**what is the difference between item category and material type ?**

**When a square wave is applied to primary of a transformer then what will be output wave form of secondary ?**

**what are the warehouse reserch? and pocess of warehouse research?**

**What is the rating of HT SUBSTATION and LT SUBSTATION?**

**which of the following rivers does not form any delta T ITS MOUTH? Cauvery, Mahanadi, Godawari, Tapti**

**How much is the minimum marks for CIVIL judge interview in MPPSC. where i can get rules in this regard documented?**

**what are the uses of graphite electrode in various field.**

**what is the use of "fg" command ?**

**what are %TYPE and %ROWTYPE? what is the difference?**

**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 in 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 mdium 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. dlc 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