

Paper : BEL Placement Paper Pattern On May 2008 (Objective and Electronics)

Here i have given some of the questions of the written paper (ECE) The paper consist of two sections -40 objective & 10 true false questions. The cut-off as told by them 30% but they may have increase this limit. in my college only 8 out of 21 cleared the paper(for ECE branch)

Part I Objective questions (40 with 1.5 marks each) with 50% -ve marking.

1. Numerical problem based on modulation index f_c , f_m . (formula based direct question).
2. Poles & zeroes are at .01, 1, 20, 100 find phase margin/angle at $f=50\text{Hz}$. ans - 90 (By drawing bode plot)
3. In n-type enhancement mode MOSFET drain current options are- increase/decrease with inc/dec in drain/gate voltage. ans(d)
4. Gain of an directional antenna 6db $P=1\text{mw}$ find transmitted power (use $P_{tr} = G * P$)
5. Multiplication of two nos 10101010 & 10010011 in 2TMs complement form..
6. A ckt is given supplied with 15v with a series of resistance of 1k and a parallel combination of 12V zener diode and 2k resistance. Find current through 2k resistance. Ans: 6mA
7. A MP has 16 line data bus & 12 line addr bus find memory range. Ans.. 4K * 1024bytes)
8. Divide by 12 counter require minimum .. no of flip flops Ans. 4
9. Storage time in p-n junction.
10. Successive approx. use in .. Ans ADC (analog to digital)
11. Pre-emphasis require in .. low freq/high freq signal.
12. Handshake in MP .. Ans to communicate with slower peripherals.
13. Binary equivalent of 0.0625 Ans. 0.0001
14. Which code is self complement of itself

15. Excess three code of an given binary no.
16. When we add 6 in BCD operations Ans. if result exceed valid BCD nos.
17. Shottky diode has better switching capability because it switch between
18. Figure of Merit is same as
19. Switching in diode happens when
20. During forward bias majority charge conc. in depletion layers inc/decrease.
21. Channel capacity depend on Ans. Usable frequency or bandwidth
22. A 2kHz signal is passed through an Low pass filter having cut-off freq 800Hz o/p will be
23. Carrier amplitude 1v, peak to peak message signal 3mv find modulation index.
24. A 12V signal is quantized into two V/14 & 6 equal V/7 determine quantization error.

Part II True & false...(10 1 mark each) with 50% -ve marking

1. Power dissipation in ECL is minimum. False
2. Fourier Transform of a symmetric conjugate function is always real. True
3. Divide by 12 counter requires a minimum of 4 flip flops. True
4. Boron can be use as impurity to analyse base of a npn transistor. True

Other Question Placement Paper :

- 1) in analog question based on zener diode
- 2) coupling capacitors and bypass capacitors affect
- 3) 1,8,27,64,125, which among the following will not come in the series
a.1000, b.729 c.259
- 4) which of the following game uses bulley
a.football

- b.cricket
- c.goalf..
- d.hockey

5) a zener diode works on the principle of

6)under the high electric field,in a semiconductor with increasing electric field

7)in an 8085,microprocessor system with memory mapped I/O

8)built-in potential in a p-n jn.-

9)the breakdown voltage of a transistor with its base open is $BV_{(ceo)}$ and that with emitter open $BV_{(cbo)}$ then

10) ques based on half adder

11) based on flip flop

12) block diagram reduction

13) to find max overshoot (2 ques based on it)