

HAL - Placement Paper - Bangalore

1. partial differentiation of $x^3y^3/(x+y)^3$
2. some points like (0,2,4), (2,5,-1) and (6,2,0) were given and were asked to find whether it is parabola, ellipse, cardioid or cycloid.
3. there were so many conversion questions like binary to decimal, decimal to binary, decimal to oct, binary multiplication etc.
4. some Laplace formula related to sine and cosine terms.
5. fourier series of quarter symmetry
6. by applying Routh Hurwitz criterion we were supposed to find the number of roots the equation was something like $2s^4+s^3+4s^2+s$ i think so
7. damping is proportional to gain, sqrt of gain, 1/gain or 1/sqrt of gain
8. vocabulary like germs:disease:: emulate:mimic::
9. there were questions about power plants like which plant corresponds to highest capital cost, highest running cost, lowest operational cost, efficiency of thermal plant
10. what is the present capacity of unit generation 200MW, 210 MW, 375MW or 500 MW
11. where in nuclear power plant is located like kota, talcher, kolghat,
12. there was 1 question related to idduki, ramagundam power plants i dont know whether it is the odd 1 out of the hydro plants
13. there was 1 repeated question related to the spacing b/w the phase conductors like 11m, 8m, 20m, 24m.
14. is meager related to hot wire instrument, moving coil or moving iron.
15. 1 question related to load factor.
16. in a two w/m method what is the condition for which both the w/ms are equal and opposite.
17. question based on inverter gate
18. question related to maximum overshoot.
19. 2 or 3 questions were related to step input, impulse i/p etc.
20. 1 question related to boolean algebra
21. some question related to find the value of lambda to get no solution.
22. 1 question was related to find from the options of nyquist criteria, bode plot, routh Hurwitz,
23. question related to exponential rise and fall of inductor.
24. given 2 poles and 50 hz freq to find the syn speed.
25. question based on inertia constant and p.u. values
26. question based on power transfer capacity and voltage
27. SIL of 400 KV lines
28. 2 questions based on maximum power transfer capacity from circuit theory.
29. attitude ques of pipes and cisterns, compound interest, time and distance, cubes, hcf and lcm, multiplication,
30. for how many days there will food if 2 persons are supposed to leave. question related to this were asked.
31. questions related to angles i don't remember the questions i remember only the options like $\pi/3$, $\pi/6$, $\pi/4$, 1, -1, $1/2$, $1/\sqrt{2}$. etc
32. question's based on P&V, P&Q, V& Δ .
33. how many HVDC links are presently in use in India.
34. there were 4 questions like if A*B represents A is the son of B, C/D represents C is the husband of D then how A and D are related.
35. to sort the odd number out from a box of given numbers.
36. V_{rms} and V_o of full wave rectifier
37. reflection coefficient of current of an open ended line.