**POLARIS**  
     
  
   
  
  The test was for one hr.-- 40 technical qns (electrical) for 1/2 hr. and 30 aptitude qns (1/2 hr.)  
 there are two sets of qn papers   
Some Tech qns  
  
1    wt motor is used in ceiling fan & washing m/cs  
  
2   In electric traction  
  
  3   wt is 8255  
  4    8085 has \_\_\_ address and \_\_\_ data lines                                                
  5    8051 is a \_\_\_\_ bit microcontroller (ans:8 bit)  
  6    74LS244 is \_\_\_\_\_  
  7   Bucholz relay is used for \_\_\_\_\_ protection (trnsfrmr)  
  8   Transmission line parameters are called \_\_\_\_   
 9    No. of poles and freq given find speed  
  
10    In which motor starting torque can be incr by adding rotor resistance (IM) there were 4 qns frm Power plants   
  
        (had to guess in that) 4 qns frm Controls (pretty easy.....like zetaL>1 means   
  
         a)underdamped       b)undamped         c)overdamped       d)critically damped  
  
11    qn abt transistor..basic workin  
12.   boolean expn was given for simplification-simple  
13.   How many flags does 8085 have? (ans-5)  
14.  which of the following are universal gates? (ans-nand,nor)  
15.  whts the frequency range of mobile communication?  
16.  The resolution of picture in tv depends on..  
        a. no: of lines scanned     b. video detector o/p   and 2 more choices were given...  
17.  Qn on stability of FET  
18.  Wht is the modulation used to transmit sound in tv  signal  
          a. VSB  
          b. FM   and 2 more choices were there...  
19   Wht is double integration of a unit step signal?  
        a. ramp signal                                                                                              
        b. parabola  
20.  It mainly covers Operating system..consists of questions in semaphore( 2 questions), job scheduling  
  
        algorithms (shortest job),paging (2 or 3 questions),virtual memory,hashing,etc  virtual memory is used for............  
20. Rdbms covers "Define Query"(simple but 4 options made some complications)  
21. Datastructure : order of randomly serached binary tree  
22. Electronics based questions which covers microprocessor 80386(not 8085) 2or 3 questions  
23. A pulse is passed through a pipe..to detect any damage..this process is called ..........  
24.  frequency reflectometry  
2)   Time reflectometry  
3)   Piggy backing

        **Aptitude**  
1  Given a 3x3 matrix, find the minor of one of the elements  
2  find the odd one out of the series 48 47 44 40 32 23 12  
3  A goes to school at 4 kmph and reaches 10 mins b4 schedule and at 3 kmph reaches 10 mins after schdule   
  
     find thedist (ans 4 km)  
4   Meaning of COY (iritated)  
5   Opposite of Grimace  
6   Opposite of FLOODED WITH  
7   JUMBLED letters find out the word, the word was FATIGUE  
8   Simple interest problem  
9   Smallest of four given fractions   
10. A guy walks @ 4kmph from a point..After 4hrs a cyclist starts from the same point @  
      10kmph....At wht distance will they meet from the starting point? the qn was almost like this.  
11. x% of people have tea, y% have coffee, z no: of people have both...find the total no: of people...  
       soln: easy..have to use n(AUB)=n(A)+n(B)-n(A intersctn   B)..  
12. Complete the series....  
       1,4 ,9,25,... (choices- 47,49,64,none)  
13. Analytical qn  
      "failures are stepping stones to success" this means...  
        a. all success are preceded by failures  
        b. success consists of failures  
        c. failures can lead to success                                                                                      
        d. none..   
  
14.  abt matrices.. which of the following don't have inverse? u have to find for which matrix |A|=0...time   
       consuming...  
15. There was 1 big sqr which had 16 sqrs in it..4 in a row & column.. each sqr had a no: in it..  except one sqr..  
  
      . had 2 find the missing no:...i dont remember the nos...  
16. 4 sentences given..& 4 choices of word given...have to choose 1 word that suits all the 4 sentences... \*the police    
  
       are \_\_\_ about the miising boy in the  forest. \* the detective was \_\_\_ her face for marks. and 2 more sentences   
  
       were there... choices(investigating, searching....).ans:investigating.  
17. Hcf of 2 nos...1024 & 1214...don remember nos  exactly..like in rs aggarwal...  
18. out of 500 students,75% of boys and 72% of girls passed.Total pass percentage is 77%.How much girls ...?  
19. how many prime numbers are between 1 to 100?  
20.A greater than B and B less than C. what is the relation between A and C ?  
21.given a set of different sentences ...we have to choose an appropriate  word which should be matching with all   
  
      sentences  eg: A person --------------the child  
                       The government---------------the people  
                       options may be 1)saved 2)preserve (this is not the exact question)