

## NALCO papers on 28<sup>th</sup> oct. 2007 at DELHI

Hi friends,

Here are the some of the technical questions posed in the NALCO exam for the post of <u>Graduate engineering</u> <u>trainee</u> on 28 oct. 2007 for Electrical branch. Out of 120 questions 60 technical questions, 60 non-tech questions and time duration was 2 and half hours.

1) rms value of AC current is equal to main current at an angle ?

a) 60 b) 45 c) 30 d) 90

2) Corona produce in two transmission line if ?

a) Whn both placed closed b) Whn both placed widely

c) Potential difference is very high d) I did't remembered

3) Diac is equall to ?

a) Two diode and two resister b) Trice with two gate

c) Two thyristor connect in antiparallel d)Four layer pnpn scr

4) In the Economic transmission point of view Kelvin,s gives ?A) Voltage drop at feederb) transmission losses

Two more option I did't remember.

5) The essential condition for using servomotor for high torque at all?

a) load b) speed

c) voltage d) power

6) If torque of induction motor is 200n-m at slip 12%. Wht is the value of torque at slip 6%.....?

a) 60n-m b) 40

c) 100 n-m d) 150

7) If speed of induction motor at full load is 950rpm then wht is the speed at half load ?

a) 1000 rpm b) 975



8) Find the value of  $\int \cot \frac{1}{2} dt$  where limit is 0 to  $\frac{1}{2}$ ?

Option I did't remerm

9) Wht is the slope of  $-x^3 + 6x^2 + 2x + 1 = 0$ ?

Option I did't remerm

10) For the purpose of constant speed we use?

- a) Brushless dc motor b) stepper motor
- c) shaded pole motor d) sync motor

11) Essential condition for parallel operation of 1phase transformer?

- a) Rating b) Polarity
- c) Impedance d) Voltage
- 12) Some of G.K. question

About placed of shriharikota space center.

- 13) Who did give the name of AL?
- 14) World literacy day?
- 15) World environment day?

16) If two heaters of 100W & 110 volt other are 150W & 110 volt connect in series with 220v ac source then what is the total power?

17) What is the GDP rate of India in 2005-06?

- 18) What is the % rate of production of AL in India?
  - a) 10 b) 20
  - c) 7 d) 14



19) One passes which have 4Qs

20) Some fill in blanks

21) One Q about the find the % of fifth harmonics in a current wave equation.

22) 4pole 3phase 50 htz induction motor running at 1460 rpm. Wht is the speed of running slip wrt to rotor?

23) Find the new kva rating of transformer which hav 220 kva, 1watt iron loss and 2watt cu loss?

24) Hay's bridge used for the measurement of?

25) In R-L-C parallel resonant circuit

a) Impedance is max. b) resistance is min

26) Two bulb 100w & 50w respectively with constant resistances connect in series with 220v dc source then wht is the value of voltage across first bulb?

27) AC ammeter used for measurement in

- a) Pmmc b) induction meter
- c) Dynamometer d) moving iron type meter
- 28) For ac current we use?

Same option

29) we preferred V-V connection over T-T connection why?

- 30) Suspension type insulator is used whn?
  - a) high voltage b) low voltage
  - c) oscillating voltage d) steady voltage

31) One question based on Norton's theorem?



32) One question based on inverted-V curve of synch motor.

- 33) one question based on load saturation curve.
- 34) There were 4 question like if A\*B represent A is the son of B, some like that
- 35) Some questions from BAR-GRAPHS
- 36) Some questions from probability.
- 37) Some questions from Data–interpretation
- 38) Some questions from diodes.
- 39) One question from winding design for motor (find value of commutator segment)