

HAL Sample Test Paper 2008

- 1) the purpose of feedback transformer & diode in complementary commutated inverters is to-
- 2) in order to obtain static voltage equalization in series connected SCR's connection r made of- (this question repeated) (i.e. 2 times same question Haaa)
- 3) in phase controlled rectification $PF =$
- 4) Why sector winding is used in synchronous motor?
- 5) A calculation of making current where MVA & KV was given.
- 6) The o/p voltage e_1 & e_2 of 2 full-bridge inverters added using o/p transformer. In order to eliminate 5th harmonic from o/p voltage, the phase angle between e_1 & e_2 will be-
- 7) A single phase fully controlled line commutated ac-dc converter operates as an inverter when-
- 8) An SCR has half cycle surge current rating of 3000A for 50Hz. One cycle surge current will be. (double of that)
- 9) When compared to an symmetrical thyristor, the turn off time & reverse blocking voltage of an asymmetrical thyristor will be-
- 10) A step-up chopper is feed from an 220v dc source to deliver a load voltage of 660 v. If the non conducting time is 100micro-sec then reqd pulse width will be. (get duty cycle only)
- 11) There were some 5-6 numerical problems which I could not remember totally but they consist of firing angle & power transfer of inverter, SCR. Go llok for that.
- 12) Relay current setting & Ct ratio was given you have to find out Relay Pick up Current.
- 13) One question from Dc shunt motor- like a resistance is added of 4.5 ohm in series with arm where rest of arm is 0.5 ohm. Machine is supplied 220v. find out the null current.
- 14) In aptitude part see through series completion there was a 5-6 no of that.
- 15) No aptitude questing like avg, %, proff-loss, prob, etc.
- 17) Why rotor of SCIM is skewed?
- 19) Good transformer oil contains how much amount of water in ppm?
- 20) Lightning over voltage create how much volt?
- 21) $K/s(s+1)(s+5)$ then find out the value of K so that system become stable.
- 22) There was a question from definition of Nyquist criteria.
- 23) Standing done up to the frequency range of? (audio)
- 24) If a square waveform if given to the supply side of a 2wdg transformer its o/p waveform will be-
- 25) SC test done on transformer because....
- 26) If a transformer is operating in .8 PF lag & at efficiency of .9, if now P is .8 lead the efficiency will become.
- 27) Interpoles are connected for?

- 28) Dielectric strength of air?
- 29) A alternator is connected to a grid. Now its prime mover is go slow by $\frac{1}{2}$. Change in its exiting current to held in synchronism.
- 30) Is the strength of capacitor in LPF is increased the op voltage will-
- 31) The voltage of a generator and an infinite bus are given 0.92, 10 deg & 1.0, 0 deg resp. the generator acts as a –
- 32) A wave will not experience any reflection when impedance of line is equal to- surge imp
- 33) Power transmitted is related to system voltage as-
- 34) Delay creator ckt name (multivibrator name actually)
- 35) In tachogenerator adjustment is done by-
- 36) Surge wave is attended by- (C,L,R)
- 37) there was 10 question related to measurement-
- 38) Read all electrostatic instrument related question from any competitive exam book.
- 39) Lowest reading in moving iron meter is-
- 40) In galvanometer damping is provided by-
- 41) In electrodynamic meter a battery & a resistance is provide for-
- 42) Megger is used for-
- 43) A question like an ac is applied against a moving coil meter it will reads-
- 44) Rectifier type instrument measureswhat value - (Rms)
- 45) Advantage of electrostatic instrument is-
- 46) Creeping occurs because-
- 47) Why 2 holes are drilled oppositely in disc of energy meter.
- 48) Energy meter is a _____ type equipment (recording)
- 49) There was a question related to selection of a voltmeter based on accuracy-
- 50) Advantage of hay bridge over anderson bridge-
- 51) Inductance is measured by – (all the 3 bridge name) .
- 52) Potentiometer is which type of instrument-
- 53) Which type of motor is used in refrigerator?
- 54) Reflection coefficient based problem 1
- 55) Corona's advantage-