

## **80 Interview questions for Electrical Engineers**

( Compiled by Dr.R.Jayapal, [www.elecspot.com](http://www.elecspot.com))

- 1) What is Toroidal transformer ? Where is it used?
- 2) What is Autotransformer? Where is it used?
- 3) What is power quality?
- 4) What is harmonics in electrical network? Problems with harmonics?
- 5) Name any 5 basic power electric components?  
(Ans: SCR, Triac, Mosfet, IGBT, Power transistor)
- 6) Difference between Induction motor and synchronous motor ?
- 7) What is BLDC motor?
- 8) Wheatstone bridge is used for what?
- 9) What is hysteresis in a magnetic circuit?
- 10) What are Iron loss , copper loss in transformer?
- 11) Draw circuit diagram of operational amplifier as 2 input summer?
- 12) What is Karnaugh map? Its application?
- 13) Name 2 types of induction motors and their features?  
(Ans: Squirrel cage and slip ring)
- 14) Give truth table of exclusive OR gate. What is its application?
- 15) Draw the symbol of N channel Mosfet?
- 16) Draw the symbol of P channel Mosfet?
- 17) Draw the symbol of IGBT?
- 18) Draw the symbol of PNP, NPN transistor?
- 19) What is pu (per unit) in electrical engineering?
- 20) Explain how power is produced in a thermal power plant?
- 21) Explain how power is produced in Nuclear power plant?

- 22) Is fuse provided in Neutral? Discuss
- 23) What is encoder?
- 24) What is Decoder?
- 25) Explain Multiplexer and Demultiplexer
- 26) When a bird sits on HT power line, it does not get shock. Why?
- 27) If you give 220V DC to a filament lamp, what happens?
- 28) Which motor has highest starting torque? DC series motor or Induction motor or Synchronous motor. (Ans: DC series motor)
- 29) What is the effect of low power factor?
- 30) Difference between UPS and Inverter ?
- 31) Difference between microprocessor and microcontroller ?
- 32) Can a single phase motor self start? How does fan start?
- 33) 1Megawatt= How many watts?  
1 Giga watt= How many watts?
- 34) What is CT ,PT?
- 35) Define Power factor. Should it be low or high? Why?
- 36) Two bulbs-100W and 60W are connected in series and given 230V ac supply. Which bulb will glow brighter? Discuss  
(Ans: 60W bulb)
- 37) What will happen if DC supply is given to primary of transformer?
- 38) If you take a mixie from India and plug it in US, what happens?
- 39) What is VFD? Where used and why?
- 40) Explain the terms-Real power, Apparent power ,Reactive power. What are their units?
- 41) Why starting current is higher in DC motor?  
(Ans: Back emf=0 when speed =0)

42) If a lamp is connected between R and Y , what happens?

43) What is the advantage of Star/Delta starter in Induction motor?

44) What are different methods of starting large Induction motor?

45) Why humming sound is heard in HT line?

(Ans: Corona)

46) Explain electric traction? What type of motor used?

47) What is regenerative braking?

48) What is stepper motor? Applications?

49) State different types of losses in Transformer?

( Ans: Iron loss (Hysteresis loss, Eddy current loss), Copper loss )

50) State different types of DC motors?

(Ans: Shunt,series and compound)

51) Three types of Multivibrators and their applications?

(Ans: Monostable,Astable and Bistable)

52) Name different types of filters in analog circuits ?

(Ans:Low pass,High pass and band pass)

53) Name different types of ADC?

(Ans: Dual slope type, Flash type, Successive approximation type)

54) Name different types of DAC?

(Ans: Weighted resistor type, R/2R ladder type, Inverted R/2R ladder)

55) What is voltage regulation in transformer?

56) Why induction motor speed is always less than its synchronous speed?

57) Draw symbol of single phase transformer, single phase autotransformer?

58) Name a few microcontrollers which are popular now?

59) Explain interrupt in microcontroller ?

60) We call microcontroller as 8 bit controller or 16 bit or 32 bit controller. This is based on what?

(Ans: Data bus width)

61) What is an embedded system?

62) Typical application of negative feed back , positive feed back in analog circuits?

(Ans: Negative feedback -Amplifier ; Positive feed back-Oscillator)

63) How do you make a transistor to conduct ? How do you make SCR to conduct?

64) What is a transducer? Example?

65) Name different types of memory chips?

(Ans: Ram,Rom,Eprom,EEprom)

66) Draw electrical symbol of SCR and its operation?

67) Draw circuit symbol of NPN,PNP transistors.

68) What happens when a transformer designed for 50Hz is operated in 60Hz?

69) What does clipper circuit/clamper circuit do?

70) What is combinational logic circuit? Example?

71) What is sequential logic circuit? Example?

72) What is Fan out in digital circuit?

73) What is Totem pole in Digital IC circuit?

74) Name a few families of Digital ICs?

75) Why do we use a capacitor across power supply in Digital IC circuit?

76) Explain the difference between EPROM and EEPROM.

77) Explain static RAM and Dynamic RAM.

78) In a three pin plug, earth terminal is always longer and thicker compared to phase and neutral. Why?

79) When we touch a power line we get shock due to voltage or current?

(Ans: Current passing through body)

80) Discuss the advantages and draw backs of HVDC transmission