## **Hal Sample Paper 2009**

General Knowledge :- 30 Questions Electronics :- 70 Questions
<ol> <li>1: - General Knowledge</li> <li>1. Lucknow is popular for which fruit: -</li> <li>a) Mango b) Orange c) Water fruit</li> <li>2. Governor of utter Pradesh</li> <li>3. President of India</li> <li>4. In which district of UP a oil refinery is found</li> <li>5. Pigeon is the indication of</li> <li>6. The chemical Formula of salt</li> <li>7. Republic day in India is celebrated on</li> <li>8. The "Beating the retreat" hasn't celebrated on republic day, what is its resion</li> <li>9. Lucknow city is located near which river</li> <li>10. Firozabad is popular for</li> <li>11. Renukot is popular for</li> <li>12. The first prime minister of India</li> <li>13. The first President of India</li> <li>14. The birth day of Pandit Jawahar Lal Nehru is celebrated as:-</li> <li>15. The writer of 'Godan'</li> <li>16. Word 'Agfa' is related to:</li> </ol>
2:- Electronics Questions.
1. When the temperature of the room increased then the energy of semiconductor
2. Power diode is generally made from: - Silicon/Germanium/Both/None of these
3. Thermionic Emission of electron is due to
4. When the both junction of NPN diode is reverse biased, then the diode is in which mode: -a) Active b) Cutoff c) Saturation d) inverted
5. Which transistor mode gives the inverted output: - a) Common Emitter b) Common Base c) Common Collector d) None of these
<ul><li>6. Which coupling gives the higher gain in case of amplifier: -</li><li>a) Capacitor coupling b) Impedance coupling c) Transformer coupling</li></ul>
7. Which distortion is least objectionable in audio amplification: - a) Phase b) Frequency c) Harmonic d) Intermediation
8. A narrowband amplifier has a band pass nearlyof central frequency:- a) 33.3% b) 10% c) 50%

9. Frequency of wein bridge oscillator
10. Phase shift oscillator consists: - a) RL b) RC c) RLC
11. Crystal oscillator frequency is very stable due to:-
12. Multivibrater Produces: - a) Sine wave b) Square wave c) Smooth wave d) sawtooth
13. Convert the 101101 Binary number into octal no: -a) 65 b) 55 c) 51 d) 45
14. 10 in BCD: - a) 10100 b) 1100 c) 010111 d) None of these
15. Which PNP device has a terminal for synchronizing purpose:- a) SCS b) Triac c) Diac d) SUS
16. In 3-Phase full converter, the output during overlap is equal to
17. Addition of indium in semiconductor crystal makes: - a) PNP b) NPN
18. Free electron exists in which band: - a) 1 b) 2 c) 3 d) Conduction band
19. Ripple factor of half wave rectifier: - a) 1.21 b) 0.48 c) 0.5
20. Efficiency of half wave rectifier: -
21. Transistor that can be used in enhancement mode:- a) NPN b) UJT c) JFET d) MOSFET
21. Following contributes to harmonic distortion in Amplifier: - a) +Ve feedback b) -Ve feedback c) Defective active device
22. High cutoff frequency: - a) CB b) CC c) CE
<ul><li>23. Which is used as data selector?</li><li>a) Encoder b) Decoder c) modulator d) Demodulator</li></ul>
24. Read write capable memory: - a) RAM b) ROM c) Both d) None of these
25. When modulation frequency is doubled, modulation index also doubled in case of: - a) FM b) PM c) AM d) PM & FM

- 26. Term 'Noise temperature' is used for27. Video detector used in TV receiver is a....
- a) Diode detector b) Ratio detector c) Phase detector
- 28. Which isn't directly operated from mains: -
- a) Half wave rectifier b) Centre tap rectifier c) Bridge rectifier d) Voltage doubler
- 29. In 3-Phase half wave rectifier each diode conducts for duration of: -
- a) 30 Degree b) 45 Degree c) 60 Degree d) 180 Degree
- 30. If number of phase in a multiphase rectifier increased then: -
- a) Output increased b) Output decreased c) Output smooth d) No change
- 31. Which output requires minimum filtration: -
- a) Half wave rectifier b) full wave c) SCR half wave rectifier d) Voltage doubler
- 32. Identify the under circuit
- a) Low pass filter b) High pass filter c) Band pass filter
- 33. Transistor is a following operated device: -
- a) Low voltage & low current device
- b) Low voltage & high current device
- c) Low current & high voltage device
- d) High current & high voltage device

## G.K:

Author of "the great Indian story".

Author of "making globalization work".

Captain of the 2006 world cup winning italian football team.

Full form of the acronym CITES.

Period of the fourth five-year plan.

In which year did the turks conquer Constantinople.