

**JASDEV SINGH SANDHU POLYTECHNIC COLLEGE, KAULI (PATIALA)**

**SUBJECT:- ELEMENTS OF ELECTRICAL ENGINEERING**

**Branch:- Mechanical Engineering ( 3rd semester)**

Sr. No.	List of questions
1	What are the different types of electric current?
2	what are the advantages of electric current
3	what is difference b/w A.C and D.C
4	What do you mean by resistance? What are the factors upon which it depends
5	How energy is related to Power? State the S.I units of Power and energy.
6	What is the difference bw E.M.F and Potential difference.
7	State and explain a. Fleming's Right hand rule. b. Len'z Law
8	Explain the following a. Amplitude b. Cycle d. Time period c. Frequency e. Phase difference
9	What is a transformer? Differentiate between step up and step down transformers.
10	Explain the construction of a single phase transformer
11	What is the idle transformer?
12	What is efficiency? Derive the condition for maximum efficiency.
13	What is auto-transformer how it is different from conventional
14	Explain the following a. Star connection b. Delta connection
15	Explain the 3-phase and 4-wire system of distribution of electrical power.
16	Mention the advantage of underground system over overhead system.
17	Why is it necessary to keep the earth resistance very low?
18	What is a Cell? What is difference between a primary and secondary cell?
19	Explain the construction and working of Solar cell
20	Compare the Lead Acid cell and Nickel iron alkaline cell.
21	Explain the difference between conductor semi conductor and insulator?
22	What is an SCR? Draw its characteristics.
23	What is barrier potential across a PN junction? Explain its significance.
24	What is the main difference between intrinsic and extrinsic semiconductors?
25	What is Zener diode? Explain its applications
26	What is servo motor? Explain various types of Servo motors.
27	What is Stepper motor? Explain various types of Servo motors.
28	Explain the concept of earthing.
29	Explain the construction and working of single phase induction motor by star delta starter.
30	What is sub-circuits? Difference between light-fan and power sub-circuits.