

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

**SUBJECT:- ELECTRICAL ENGINEERING**

**Branch:- ECE ( 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	Discuss the starting methods of dc motors.
19	How to reversal of direction of rotation is obtained in 3-phase induction motor.
20	Explain the working of star delta starter and its application .
21	Explain the difference between squirrel Cage Induction motor and Slip ring Induction Motor?
22	What is a synchronous condenser? How it improves the power factors.
23	Explain the working of shaded pole motor with neat and clean diagram.
24	Explain the construction and working of hysteresis motor.
25	Explain the construction, principle and working of Repulsion motor.
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 torque-speed characteristics of reluctance motor.
29	Explain the construction and working of single phase induction motor by star delta starter.
30	Name the motors for following applications.

	1. Portable drilling machine 2. sewing machine
31	Why the universal motor is called so?
32	What is torque angle and how it is developed due to alignment of two magnetic fields.
33	Define instrument transformer and explain how PT is used to measure voltage in power system.
34	Define slip and its importance.