

BE Semester-VI (ELECTRICAL) Question Bank

(POWER ELECTRONICS)

All questions carry equal marks (10 marks)

Q.1	Explain working principle of Jones's chopper with necessary circuit diagram and waveforms.
Q.2	Write a short note on load commutated chopper with necessary diagrams.
Q.3	Explain working principle of current commutated chopper with necessary diagrams.
Q.4	Explain working principle of voltage commutated chopper with necessary diagrams.
Q.5	Explain in detail working principle of step up and step down chopper.
Q.6	Explain in detail working principle of step up - down chopper.
Q.7	Write a short note on current source inverter.
Q.8	Write a short note on voltage source inverter.
Q.9	Draw and explain working of Mc Murray inverter.
Q.10	Draw and explain working of Bed Ford inverter.
Q.11	Write a short note on PWM inverter.
Q.12	Explain working principle of parallel capacitor commutated inverter with necessary sketches.
Q.13	Explain basic principle of single phase full bridge inverter with waveforms.
Q.14	Explain basic principle of three phase full bridge inverter with waveforms.
Q.15	Write a short note on speed control of DC motor using armature voltage control method.
Q.16	Write a short note on speed control of DC motor using armature current control method.
Q.17	Explain in details VDR method for speed control of DC motor.
Q.18	Explain in details Saturable reactor method for speed control of DC motor.
Q.19	Write a short note on soft starter for DC motor.
Q.20	Write a short note on speed control of DC motor using chopper.
Q.21	Explain variable voltage and variable frequency control principle for speed control of AC motor.
Q.22	Explain variable current and variable frequency control principle for speed control of AC motor.
Q.23	Explain slip power recovery control method for AC motor.
Q.24	Write a short note on vector control for speed control fo induction motor.
Q.25	Write a short note on chopper control of rotor circuit of slip ring induction motor.
Q.26	Draw and explain speed torque characteristics of DC series motor.
Q.27	Draw and explain speed torque characteristics of DC shunt motor.
Q.28	Explain working of SMPS using push pull converter.
Q.29	Draw and explain speed torque characteristics of induction motor.
Q.30	Explain working of SMPS using feed forward converter.
Q.31	What is braking? Enlist different types of braking for chopper drives.
Q.32	Write a short note on dynamic braking for phase controlled drives.
Q.33	Write a short note on regenerative braking for phase controlled drives.
Q.34	Explain basic principle of ac breaker using thyristors.
Q.35	Explain basic principle of dc breaker using thyristors.
Q.36	Draw and explain battery charging dimmer control circuits.
Q.37	Explain excitation systems of alternators with necessary diagrams.
Q.38	Enlist advantage and disadvantages of static switches.
Q.39	Explain on line ups with necessary diagrams.
Q.40	Explain offline ups with necessary diagrams.