

**BE Semester-VII (ELECTRICAL) Question Bank**  
**(MICROCONTROLLER AND PLC)**

**All questions carry equal marks (10 marks)**

Q.1	Draw and explain block diagram of 8051 micro controller.
Q.2	Write difference between micro controller and microprocessor.
Q.3	Explain program counter and stack pointer in micro controller.
Q.4	Explain different register banks in 8051 microcontroller.
Q.5	Explain different types of flags in 8051 microcontroller.
Q.6	Draw and explain pin diagram of 8051 microcontroller.
Q.7	Write a short note on different types of addressing modes of 8051 microcontroller.
Q.8	Enlist different types of jump instruction and explain with suitable examples.
Q.9	Enlist different types of call instruction and explain with suitable examples.
Q.10	Enlist different types of loop instruction and explain with suitable examples.
Q.11	Enlist different types of arithmetic instruction and explain with suitable examples.
Q.12	Explain unsigned and signed number with suitable example.
Q.13	Enlist different types of logic instruction and explain with suitable examples.
Q.14	Explain rotate and swap instructions with necessary examples.
Q.15	Explain carry and borrow terms with references of 8051 microcontroller.
Q.16	Write a short note on timers and counter of 8051 microcontroller.
Q.17	Enlist different types of interrupts with suitable example.
Q.18	Write a short note on basic serial communication using RS232.
Q.19	Write a short note on microcontroller interfacing with ADC.
Q.20	Write a short note on microcontroller interfacing with DAC.
Q.21	Draw and explain LCD interfacing with 8051 microcontroller.
Q.22	Draw and explain Keyboard interfacing with 8051 microcontroller.
Q.23	Write advantages and different application of PLC.
Q.24	Draw and explain block diagram of PLC.
Q.25	What is ladder diagram? Explain with suitable example.
Q.26	Write a short note of different type of register in PLC.
Q.27	Describe application of PLC in power system.
Q.28	Describe application of PLC in control drives.
Q.29	Write a short note on timer and counter functions with reference of PLC.
Q.30	Write a short note on history of PLC
Q.31	Explain number comparison functions of PLC.
Q.32	Explain skip and master control relay functions with reference of PLC.
Q.33	Explain jump functions with reference of PLC
Q.34	Explain data move system and data handling function with reference of PLC.
Q.35	Write a short note on PLC matrix functions.
Q.36	Write a short note on sequencer function.
Q.37	Explain on off mechanism operation in PLC.
Q.38	What is hot rail and cold rail in terms of PLC.
Q.39	Draw and explain input and out mechanism in PLC.
Q.40	Compare PLC and 8051 microcontroller.