

## BE Semester-VIII (ELECTRICAL) Question Bank

### (Digital Signal Processing in Electrical Engineering)

All questions carry equal marks (10 marks)

Q.1	Write a short note on discrete time signals with suitable examples.
Q.2	Explain LTI system with suitable example.
Q.3	Compare time domain and frequency domain system.
Q.4	With suitable example explain sequence representation by Fourier transform.
Q.5	Write a short note on discrete time random signals.
Q.6	Explain Fourier transform theorem.
Q.7	Enlist different type of properties of Z transform.
Q.8	Enlist different type of properties of inverse Z transform.
Q.9	Write short note on Z transform.
Q.10	Write a short note on periodic sampling.
Q.11	Explain sampling theorem with suitable example.
Q.12	Explain block diagram of linear constant coefficient differential equations.
Q.13	Write a short note on signal flow graph representation.
Q.14	Write a short note on IIR systems.
Q.15	Explain basic structures of FIR systems.
Q.16	Compare microprocessor and digital signal processor.
Q.17	Write a short note on history of digital signal processor.
Q.18	Explain different type of physical memory.
Q.19	Enlist different types of interrupts. Explain any one interrupts.
Q.20	Write a short note on interrupt control registers.
Q.21	Explain operation of ADC with suitable example.
Q.22	Write a short note on ADC control registers for LF 2407ADC
Q.23	Write a short note on event manager.
Q.24	Enlist interrupt flag registers. Explain any one.
Q.25	Write a short note on general purpose timers.
Q.26	Write a short note on input output control register for dsp.
Q.27	Explain QEP control register.
Q.28	Compare architecture of LF 2407 and LF 2812 processors.
Q.29	Explain application of TMS 320LF 2407 as a power factor correction converter.
Q.30	Draw and explain block diagram of PIC microcontroller.
Q.31	Explain application of TMS 320LF 2407 as a motor speed measurement.
Q.32	Explain application of TMS 320LF 2812 as a solar power inverters.
Q.33	Explain application of TMS 320LF 2812 as a power line communications.
Q.34	Write a short note Memory addressing modes of dsp.
Q.35	Draw and explain pin diagram of pic microcontroller.
Q.36	Explain OPTION and INTCON register.
Q.37	Explain different types of addressing modes of PIC.
Q.38	Write a short note on I <sup>2</sup> C Bus.
Q.39	Explain PWM modules in PIC 16F877.
Q.40	Write a short note on memory organization of PIC.