Name:

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EIGHTH SEMESTER B.TECH DEGREE (SUPPLEMENTARY) EXAMINATION

AI 04 804 (A)/EC04 804 (A) DSP CONTROLLERS

Time: Three Hours

Maximum: 100 Marks

PART A

- I. a. Explain the serial parts in the TMS 320C6x Processor.
 - b. Explain pipelining used in TMS 320C6x Processor.
 - c. Explain the forced point format followed in TMS 320C64 Processor with appropriate example.
 - d. Explain the floating point format followed in TMS 320C64 Processor with suitable examples.
 - e. Explain FIR, IIR filters with examples.
 - f. Write notes on software pipelining.
 - g. Explain briefly on compilers
 - h. Write notes on multi rate filters.

 $(8 \times 5 = 40 \text{ marks})$

PART B

II. a. Explain the addressing modes of TMS 320C6x Processor.

OR

- b. Explain the DMA operation using TMS 320C6x Processor.
- III. a. Explain the CPU of TMS 320C64 Processor.

OR

- b. Write an assembly language program for TMS 320C64 to find the standard deviation of n given numbers.
- IV. a. Explain the code optimization procedures with examples

OR

- b. Write notes on
 - (i) adaptive filters
 - (ii) noise cancellation method.
- V. a. Explain DSP application in
 - (i) PLL
 - (ii) FSK modems

OR

- b. Explain DSP application in
 - (i) Voice scrambling
 - (ii) Image processing.

 $(4 \times 15 = 60 \text{ marks})$

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