

44470

Name :

Reg. No:



SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, JUNE 2013

**AI09L06 - DSP CONTROLLERS
(2009 Admission)**

Time : Three Hours

Maximum : 70 Marks

PART A

Answer all Questions

1. What is meant by pipelining?
 2. Differentiate fixed point & floating point data type with examples
 3. Write down the transfer functions of a general FIR & IIR systems
 4. Write down DSP application image processing
 5. Give any two typical addressing modes of DSP processors which cannot find in microprocessors & controllers
- (5X2marks)

PART B

Answer any four Questions

6. Explain the interrupts of TMS 320C6X DSP Processor
 7. Write down a simple assembly language program to perform circular convolution two 4 point sequences TMS320C64X processor
 8. Define DFT Pair. Why we go for FFT. Compare the computational complexity both
 9. Explain the PID control application in DSP
 10. Explain DMA operation in the context of DSP Processor
- (4x5marks)

PART C

11. With a neat sketch explain the architecture of TMS 320C6X

OR

12. Explain various addressing modes of TMS320C6X with examples
13. Explain various instruction classifications of TMS320C64X with examples

OR

14. Write down the algorithm & ALP for computing the Eigen values of a matrix

15. a) List the features of adaptive filter

- b) Enumerate the term noise cancellation

OR

16. find the DFT of the sequence $x(n) = (-1)^n [u(n) - u(n-8)]$ using DITFFT algorithm

17. write short notes on Codec & voice scrambling

OR

18. Explain DSP applications in Ai & communication

(4x10 marks)

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