

Subject Code: H6805/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015

ADVANCED MECHANICS OF SOLIDS

(Common to SE &SD, SM&FE, GE)

Time: 3 Hours

Max Marks: 60

**Answer any FIVE questions
All questions carry EQUAL marks**

1. Explain the significance of Fast Transform techniques. What are the advantages over DFT?
 - b. Find DFT of a sequence $x(n) = \{0, 1, 1, -1, -1, 0, -1, 1\}$ using DIFFFT algorithm.
2. a. Explain the Sources of error in DSP implementations
 - b. With neat example Explain the procedural steps of Overlap add method
3. a. Explain the features for external interfacing.
 - b. Briefly discuss about the floating point and block floating point formats
4. a. Explain the Data Addressing modes of TMS320C54XX DSPs.
 - b. Explain the Interrupts of TMS320C54XX Processors
5. a. How the shifters are useful in DSP? Explain the functionality of barrel shifter?
 - b. Explain the base architecture of ADSP 2181
6. a. Explain the Bus Architecture of Black fin Processor
 - b. Explain the significance of External bus interfacing signals
7. a. What are the characteristics of analog devices family of DSP devices?
 - b. Briefly discuss about the floating point and block floating point formats
8. Write short notes on the following
 - a. D/A Conversion Errors
 - b. On-Chip Peripherals