Code No: G6801/R13

M. Tech. I Semester Supplementary Examinations, December-2016

MICROCONTROLLERS FOR EMBEDDED SYSTEM DESIGN

(Common to VLSI&ES, ES&VLSI, VLSID&ES, ES and ES&VLSID)

Time: 3 hours **Max. Marks: 60**

Answer any FIVE Questions
All Questions Carry Equal Marks

1.	a	Define Embedded system,explain with real time application.	[6]
	b	Why do we use controllers in the embedded systems,explain indetail?	[6]
2.	a	What is meant by ARM? Explain the ARM design philosophy.	[6]
	b	Explain the different types of ARM processor families.	[6]
3.	a	What is the difference between instruction set and thumb instruction set?	[6]
	b	Explain about the Branch instructions and register usage instructions.	[6]
4.	a	Explain about ARM programming with one example	[6]
	b	With a suitable example, explain about the assembly code using instruction scheduling in ARM programming.	[6]
5.	a	Explain about the cashe architecture in memory management.	[6]
	b	Explain about polices and access permissions in memorymanagement	[6]
6.	a	With a suitable example explain about the pipelineof ARM.	[6]
	b	What is meant by PSR,why we are using in embedded system design?	[6]
7.	a	With a suitable example explain about the data processing instructions.	[6]
	b	With a suitable example explain about the integer and floating point.	[6]
8.		Write a short notes on a) content switch b) register usage c) flushing and cashes.	[12]

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