



UNIT IV

ARM ARCHITECTURE

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	List various fundamental features of ARM processor.	L1	Co4	PO1, PO2, PO3, PO4
2	Write applications & advantages of ARM Processors.	L2	Co4	PO1, PO2, PO3, PO4
3	Define CPSR SPSR in ARM and draw its format .	L2	Co4	PO1, PO2, PO3, PO4
4	Illustrate the registers organization in ARM Architecture.	L2	Co4	PO1, PO2, PO3, PO4
5	Explain the concept fast interrupt request and IRQ .	L3	Co4	PO1, PO2, PO3, PO4
6	Explain about thumb instructions.	L2	Co4	PO1, PO2, PO3, PO4
7	What is mean by load store instructions.	L2	Co4	PO1, PO2, PO3,



				PO4	
8		Where arm chips are used.	L2	Co4	PO1, PO2, PO3, PO4
9		Explain about Thumb instruction set of ARM controller.	L3	Co4	PO1, PO2, PO3, PO4
10		Explain about MUL,MLA instructions	L4	Co4	PO1, PO2, PO3, PO4
Part – B (Long Answer Questions)					
11	a)	Explain the core Data Flow model of ARM processor.	L3	Co4	PO1, PO2, PO3, PO4
	b)	Write about multiple Register Data Transfer Instructions.	L1	Co4	PO1, PO2, PO3, PO4
12	a)	List out Program flow control instructions and give Examples for each one	L2	Co4	PO1, PO2, PO3, PO4
	b)	Write about the fundamental features of ARM processor.	L2	Co4	PO1, PO2, PO3, PO4
13	a)	Differentiate between ARM instruction and Thumb instructions Mention the advantages of Thumb instructions	L4	Co4	PO1, PO2, PO3, PO4
	b)	Discuss the various modes of operation of ARM with neat diagram.	L2	Co4	PO1, PO2,



					PO3, PO4
14	a)	Discuss briefly about Thumb instruction set of ARM. How is a Thumb instruction differentiated from an ARM instruction.	L4	Co4	PO1, PO2, PO3, PO4
	b)	Using the following instruction set of ARM write syntax for different examples (a)Data Processing (b)Load Store (c)Conditional Execution	L4	Co4	PO1, PO2, PO3, PO4
15	a)	Explain with a neat diagram the architecture of ARM Processor.	L2	Co4	PO1, PO2, PO3, PO4
	b)	Explain in detail about Exceptions handling, interrupts & interrupt vector table of ARM	L2	Co4	PO1, PO2, PO3, PO4
16	a)	Explain the programming model of Registers in ARM	L2	Co4	PO1, PO2, PO3, PO4
	b)	List all arithmetic instructions in ARM	L2	Co4	PO1, PO2, PO3, PO4