# ARM Instructions Practice Problems

CDA 3101

0xCA0A012A

0xCA0A012A

1100 1010 0000 1010 0000 0001 0010 1010

0xCA0A012A

#### 110010100000 1010 0000 0001 0010 1010

STXR	D	11	11001000000	
LDXR	D	11	11001000010	
EOR	R	11	11001010000	
SUB	R	11	11001011000	
SUBI	I	10	1101000100	(
EORI	I	10	1101001000	(
MOVZ	IM	9	110100101	(
LSR	R	11	11010011010	

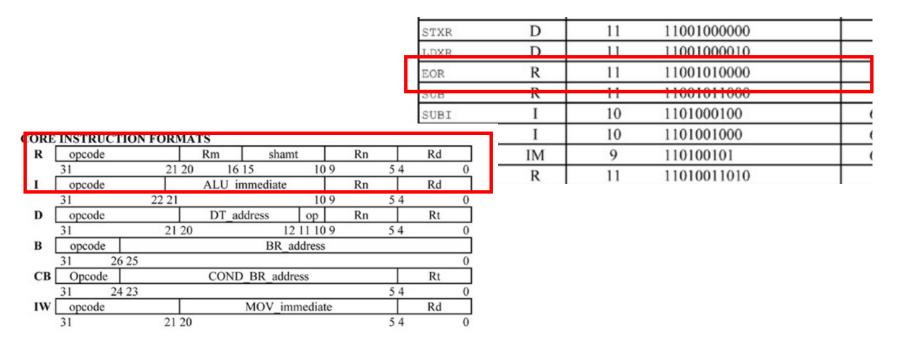
0xCA0A012A

#### 11001010000 0 1010 0000 0001 0010 1010

LSR	R	11	11010011010	
MOVZ	IM	9	110100101	
EORI	I	10	1101001000	
SUBI	I	10	1101000100	
50B	R	- 11	11001011000	
EOR	R	11	11001010000	
LDXR	D	- 11	11001000010	
STXR	D	11	11001000000	

## 0xCA0A012A

## 11001010000 01010 000000 01001 01010



0xCA0A012A

### 11001010000 01010 000000 01001 01010

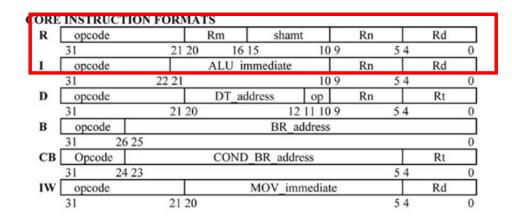
R	opcode		Rm	shamt		Rn	Rd	
	31	21 20	16 1	5	109	5 4		0
[	opcode		ALU im	mediate		Rn	Rd	
	31	22 21			109	5 4		(
D	opcode		DT_add	ress	ор	Rn	Rt	
	31	21 20		12	11 10 9	54		(
В	opcode			BR ad	dress			
	31 262	5						(
CB	Opcode		COND	BR_addre	SS		Rt	
	31 242	3				5 4		0
W	opcode		N	MOV_imm	ediate		Rd	
	31	21 20				5 4		0

Rm = 01010 = X10 Rn = 01001 = X9 Rd = 01010 = X10

0xCA0A012A

11001010000 01010 000000 01001 01010

EOR X10, X9, X10



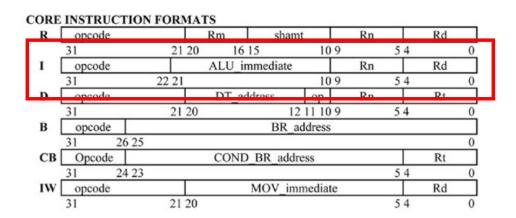
Rm = 01010 = X10 Rn = 01001 = X9 Rd = 01010 = X10

ADDI X13, X14, #100

	and		15	750	wined winds wind	
1	ADD Immediate	ADDI	I	488-489	R[Rd] = R[Rn] + ALUImm	(2,9)
ı	ADD Immediate &	ADDIS	I	588-589	R[Rd], $FLAGS = R[Rn] +$	(1,2,9)

## ADDI X13, X14, #100

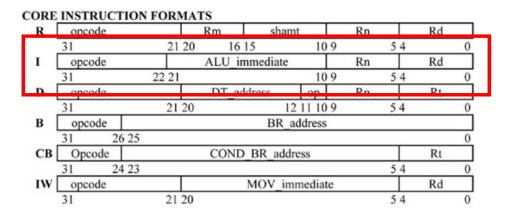
	ALD D	*****	14	750	refred - refreid - refreid	
1	ADD Immediate	ADDI	I	488-489	R[Rd] = R[Rn] + ALUImm	(2,9)
ı	ADD Immediate &	ADDIS	I	588-589	R[Rd], $FLAGS = R[Rn] +$	(1,2,9)



## ADDI X13, X14, #100

	ADD		15	750	refred - refreid - refreid	
1	ADD Immediate	ADDI	I	488-489	R[Rd] = R[Rn] + ALUImm	(2,9)
ı	ADD Immediate &	ADDIS	I	588-589	R[Rd], $FLAGS = R[Rn] +$	(1,2,9)

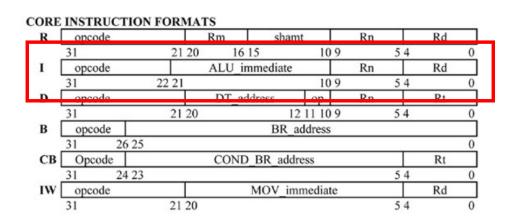
nuu.		CACA	10001011000	7.0	U
ADDI	I	10	1001000100	488	489
ANDT	ī	10	1001001000	490	491



ADDI X13, X14, #100

## 1001000100 000001100100 01110 01101

OVV.		24.24	10001011000		/U
ADDI	I	10	1001000100	488	489
ANDT	Ī	10	1001001000	490	491



ADDI X13, X14, #100

1001000100 000001100100 01110 01101

1001 0001 0000 0001 1001 0001 1100 1101

0x910191CD