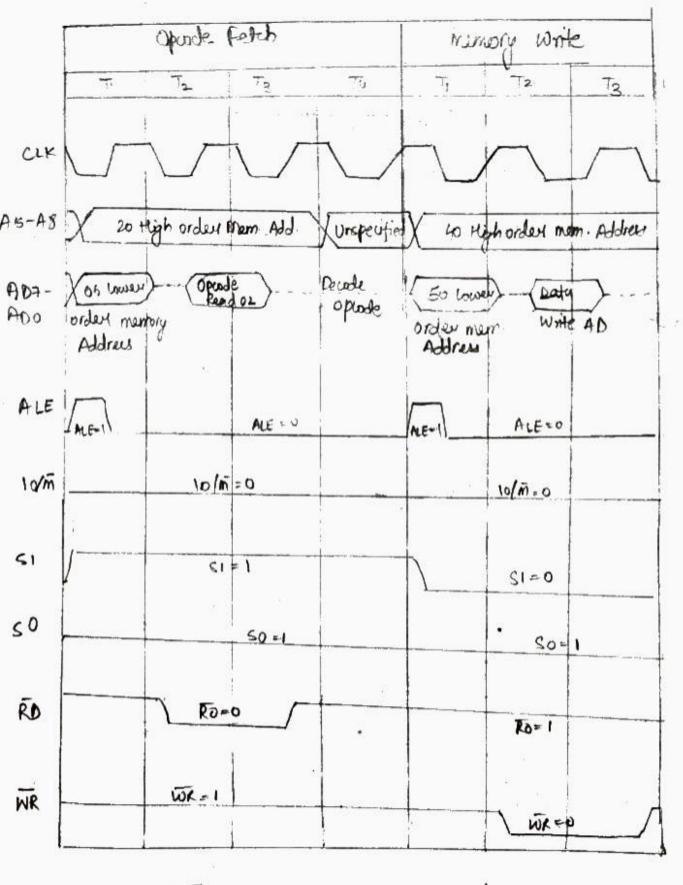
Exposiment - 4. flom's wente a pringram a) To find the langest number in a given data average b) To move a black of data from one section of memory to another section of memory Softween Used GNUSIM 8085. Algorian -A) to find the langest number in a given data averay: 1. Address of count in HI pair 2. Count in sugister G. 3. Address of 1st number in HC pain 4. 1st number in accumulator. 5 Decrement count 6 Address of next number - Compare next number with perevious maximum 8. K next number > peremous maximism? a No, larger number is in accumulation. Goto labele anead. 19. Yes, Get langer number in accumulation 1) Decrement count & jump to step 6 if not zero. 12- Store the result in 24504. 13. Stop. B) To move block of data from one section of memory to another · Intlialize Countees 2. Get the data from sowice baction 3. Store data in destination & vecrement the counter value. 5. If not guo, then continue processing 6 walt



Timing Diagram for STAX D>

Havchard A Flanchaut for finding largest no m a data average :and He pair with ald of let oppoint Place of sperand to occumulation moument He pair to paint next no) Indialize (with no of elements) · in the control of the control of the control of Company m with A Max data from m to A. THE PERSON OF THE PARTY OF Done Un could to memory (STOP). go reas chard for triansferring black of dato from one to another (Stant) Fritialize Country (to name of ages) -Inchalize Hi pain to source namony location Indialize Dr pain to destruction namony locations More data from squice accumulatori Move data from accumulato to destin. · [movement Hi pauls] -Increment of part ... Decrement country (): Boomtu=0 ...

Lagram Codes.

-				(CONTI	Address	mochuni	T-State
Label	Momory	rimemonius	Operar	Comments	modes	cycle	
-	2000	CXI H	2050 H	Lood HL Paris with	Immediat	2 grade fetcht 2 memory sod	10
	2003	more'w		Move count to	Induct	mornious head	7
	2004	DORC		Devement seg C	Registery	opcode fetch	9
8.3	2005	INX H		Movement HLPain	HER COLON	opine fit in	6
	2006	mou A,M		Move data from to all	Irdund	morniory soul	7.
(xxp2	2007	INX H		Inourrond HC Pack Compare, content of A	tainet !	goods fetch+	7
	2008	comp m	- 4	COUL OF THE SALL COME		remosey lead	7(false)
	2009	THE roop!		more and generated	12	monory raco	10 (buse)
	200 C	mou A, m		Content of A to	11	wholy mad	7
		253 034	Contract 18	minmont Noit	Degiste (opcode fetch	.4
Loop 1	200D	DORC'		Jamp to loop 2 is not	Tromedicale	opende fetch	708 gales 5
	200E	JN 2 (000)2		Jamp to each 2 g 100			(July)
	2011	STA :	Same and	Company of A to	L.	poods fetch+	7
	2014	HUT		inet	Of	and fetern	5

Dutput: Finding langest number in a data away.

THE data > C4 20 1A 55 26

THE data > 2050 2051 2052 2053 2054

Age Execution

b) label	Memorry Advers	Mnemanics	operan	Community	Attitusing	machine "	Stolen
	2000	UH	3c0 H	adduss	mmediate	grade felch+	10
	2003	MUI C	05H	Move count to Chey	Durict	opeacls fetchin memory wood	7
	2005	MD	2600	Coad DE Paux wouth	Immoduate	grade fetch+ 2 manary sead	10
mp	2008	mou A,M		occumulation	Inducest	grode fetch	7
	200g	STAX D	1	Content of A to morn add stored in DEFO	Inclinect	morey with	7 6
	200A	INX H		Incrument HL Pair	Reguter	cousi fetch	6
	2008	INX D			eyeseen	greate fetch	4
	2000	OCR C		Decument Chego k	nigeare.	aprente letcht	7 (484)/
	200 D	INS COOP		Jump y not seres In	nimediate,	omum ruad	15 (MW)
	2010	HLT	- 1	unet		bus idle cycle	17 19

output: moving a block of data from one memory location to another:

input Pater	01	02	03	04	05
input Pata	200	201	207	2503	2924

After Execution -

Out	Caster	101	02	63	04.	05
money	Add.	2600	2601	2602	2603	2604

-> Colaulation for time required for execution of program.

A) For finding fargest number in a quien data average

Crystal freq = 6m4z (lab Time period (T) = 1 clack freq = 6/2=3m42

2) Ist pass -> 10+7+4+6+7 = 34

2^{ma} pass (4p20) > 6+7+7+7+4+10 = 41

3^{ma} pass (4p20) > 6+7+7+7+4+10=41

4^{ma} pass (4p35) -> 6+7+7+7+4+10=41

Total Tstats = 34+41+41 +46 = 162

Times recurried = 162×033×10-6=158 9ps

b) First pass > 10+10+7=27 +Turbrus passes > (+17+6+6+4)×5 +10×4+7+5. = 202

(5 byten 1.e 5 loop & Jump most 4 terrs)

Total = 202 + 27 = 229

Time Required = 033 × 229 × 10-6 = [76.25 pts]

Kesult!

- a) largest number in an arrivary was found & program
- b) Program to move a block of data from one location to another was executed successfully.