Affiliated to Bikaner Technical University, Bikaner



## LABORATORY CERTIFICATE

Name of the laboratory Microprocessor ( Julerface Labe Lab Code MCS\ - 2 (  Section Batch C2
Section Batch 2
Department Computer Science
This is to Certify that Mr./Ms
registration no. JIET/cs/18/177 has satisfactorily completed the course of
experiments in the above practical Examination conducted by the University. Total number of
experiments performed by him/her
Date of University Exam

Signature of Faculty in-charge

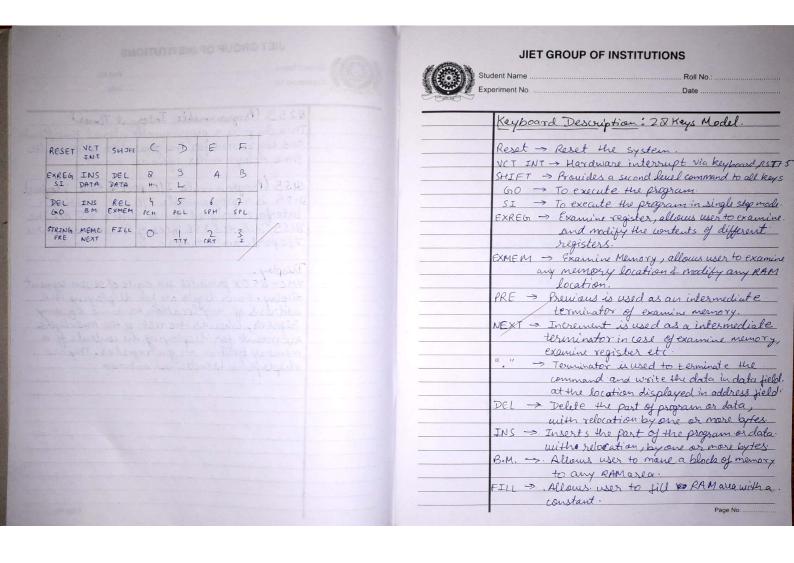
Signature of Head of Department Signature of External Examiner

vam	e of the laboratory				Lab Code	
	Andrew State of the State of th	Date of		Page	Remarks	Signature of Teacher
S.No.	Name of Experiment	Allotment	Completion	No.	Tromano	With Date
1	Assignment - 1 Introduction	22/1/20	28/1/20		2	thy
	0			1		-
2	Assignment-2.	29/1/20	52 /2/20		9	sive
	Add two nos & store at	2111	1.1			Market lake
	given location.		A			
	July Colonia					
3	Assignment - 3	5/2/20	12/2/20		0)	STACE
0	Adding two 16 bit no.s.	1				
	Hading too to be a second					
4	Assignment-4.	12/2/20	19/2/20		9	- Cit
7	Add two 16, bit no s without	AND THE RESERVE AND THE PARTY OF THE PARTY O				
	DAD Command.					
	DAD GOOGLA	-, -		>		no s
-	Acaba 1-5	19/2/20	13/20		9 =	(Market)
2	Assignment -5 Swap content of memory	11	1-1-			
	Swap content of war of					
	location	Words				
						PANEL NO.
						All of the last of
	THE RESERVE TO STREET WHEN THE PARTY OF THE					

	eriment No. Bate Date
	Assignment-1
	Introduction
→ → → → → → → → → → → → → → → → → → →	VMC-850X series kit (VMC-8501/VMC-8502)  is a single board nicroprocess development kit.  VMC-850X communicates with the outside world through a key board having 28 keys for Seven segment he raderional display.  VMC-850X provides 8 Kb / 32kb of R AMS.  8 Kb of EPROM. The total onboard memory.  can be very easily expanded to 64 Kb in an appropriate combination of RAM & ROM.  The on board kit provides provides various powerful software commands like the surious powerful software commands like the software commands like the software commands was a sound the international adopted. STD Bus which is the most popular
	bus for process control and real time applications.  System Specification-  CPU > 8 bit MP, 8085  MEMORY > 64 Kb.  RAM > 8 Kb   32 Kb and space for fearther expansion.  ROM > 8 Kb. of EPROM. loaded with powerful prog.  TIMER > 16 bit programmable. counter using 8253.  I/O > 24 I/O lines using 8255  Power Supply > + 5 V, 1.5 A for kit.  12 V.+5%, 250 m A for (RT/R interface.

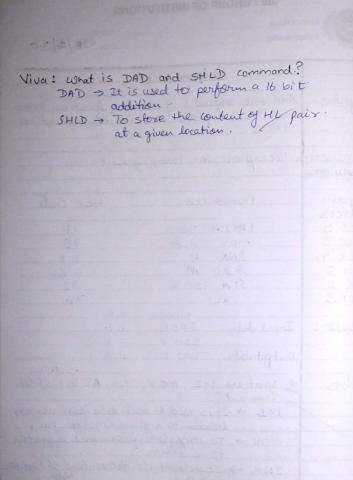
Student Name
Experiment No
Hardevare Description.
General The system has got 8085 as the CPV. The clock frequency for the system is 3.07MHz and is generated from as crystal of 6.14 MHz.
Memosy VM C-850x provides 8 Kb/32 Kb of RAM using 6264 /62256 chip and 8 Kb of EPROM for monitor. Total onboard memory can be extended.
I/O devices.  The various I/O chips used in VMC-8501 are
8279,8255 & 8253 and VMC-8502 are 8279, 8255,8253 & 8155. 8279 (Keyboard & Display Controller).
8279 is general purpose programmable keyboard and display I/O interface designed for use with the 8085 ul.
8255 (Programmable Peripheral Interface) (PPI) 8255 is a PPI designed to use a eith 8085 M. This basically act as a general purpose I/Oduic to interface peripheral equipments to the systems
Page No

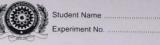
	ident NameRoll No.:Roll No.:
A CHARLE OF	periment No
	8253. (Programmable Internal Timer
	This chip is a programmable interval timer (count
	and can be used for the generation of accurate time delays under software control.
	8155 (Programmable I/O part & timer interface)
	2155 is a programmable I/O ports and timer interface designed to use with 8085 MP. The
	8155 includes 256 bytes of KIN nemos y mine
	I/o ports and a timer.
	VMC-850x provides six digits of seven segment
	display. Four digits are for displaying the address of any location or name of any
	register, whereas the rest of the two digits are meant for displaying the contents of a
	memory location or of a register. They are
	displayed in hexadecimal notation.
	Page No.



Student Name
REL> Relocates a prog. woither for some memory area and to be transferred to other memorare.  INS DATA -> Inserts one or more data bytes in the user's program/data area.  DEL DATA -> Deletes one or more data bytes from the user's prog. / data area.  STRING ->. Finds out the string of data lying at a particular addresses or addresses.
MEMC > Memory Compare: compares two blocks of memory for equality  0-F > Hexadecimal keys.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

#### JIET GROUP OF INSTITUTIONS Student Name Experiment No Experiment No. Date 295 /1/20 Assignment -2 Add the contents of memory location 3000 and 300 1. I place the result inlocation Objective: Hardware. Microprocessor training kit. Requiremen Program Premonics. Hex Code Address 21 LUXIH. 3000 2000 2003 7E mov A,M. 2004. INX H 2005 ADD AN STA 3002. 2006. 32 2009 76. HLT Address 3000 (1. 300 1 Output data . 300 2 sites Viva: a What are LXI, MOV, INX, ADD, STAFRET Command ? ADD = It adds the data of a given location with content of Accumalate and stores the result in. LXI. > It is used to load data from memory location to a given Register paix. mov > To copy data from one segister to another. STA >. Transfer the content accumulator to a given: INX -> It increments the content of Register pair by 1. memory location HLT > To indicate end of program





Roll No.: Date 5 2 / 2 / 2 0:

	As	signment-3.		
Objective.	Add a, 16 bit numbers and sind result on another location.			
particularly houses	LES M. D. C. LEWIS CO. Property		Parking Street	
Hardware.	Micropsocessor	training Kit.	Assessment of the latest of th	
Requirement	all who sale he	0		
	About 18 to 1 Mars	tor . Nation and the		
Program :		103	T 12 200	
	MNEMI	ONIC.	THE WHAT IN THE	
Address.	opcode.	operand. H. 0101	Hex Code.	
2000	LXI	H. 0101.	21	
200			01	
2002			01	
2003	LXI	D 0101	11	
200 4.			01	
2005			01.	
2006	DAD	D.	19	
2007	SHLD.	2500.	22	
2008			00	
2009			25	
200R.	' HLT.		76.	
	A TOP OF THE PARTY			
Result:	Input data:	0101		
		0101		
	Destput data:	0202.		
	and			
	Then			
	- Nites			
			Page No.	

Result: Input data. 7777 1111 Output data 8888

Viva: What is ADC command? How is it different from IAD?

It is used to add the content of register.

and accumalator and also accounts fore

carry if generated, which is soldiscarded in case

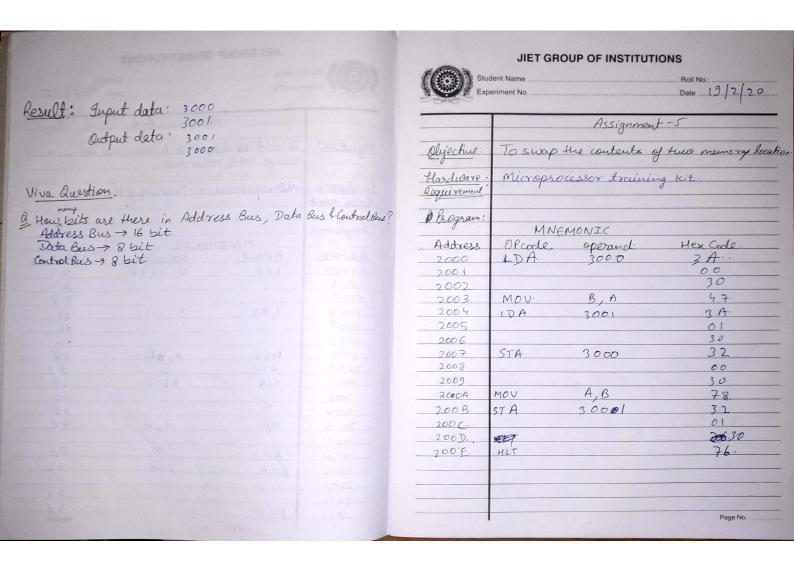
of DAD.

#### JIET GROUP OF INSTITUTIONS



Student Name ...
Experiment No. .

		soot into two	- Elizabella			
	Assignment-4.					
4 - 41						
Objective:	To add to two, 16 bit numbers to without using DAD command.					
0	using DAD (	ommand.				
11 1						
Hardware.	microprocess	or Training Ki				
Requirement	1 2 9 10	ALA - ALA				
0	A107 - 2370 - 610	+i-1 Al e-x	O Markets			
Program:	MAICH	NONIC.				
Address	OP Code	operand.	Mex code.			
2000	LXI	H 7777	21.			
2001.			77			
2002			77			
7003	LXI	D 1111	11			
2004			11			
2005			11.			
2006	MOV	A, DL	77			
2007	ADD	, E	83			
2068	STA	2500	32			
2009			00			
200A		3.61.6. 3	25'			
200 B	mou	A , H	70.			
200 C			The Part of the Pa			
200)	ADC.	D.	8 A.			
200 €	STA	2501	32.			
200F		A CHARLEST AND A STATE OF	01.			
2016			25			
2017	HLT		76			
	Tites -		Page No			



AND STREET, SA		
	Student Name	Roll No.:
		Date

	A	Signment -6.	
objective:			(Sbytes) in forwar at another Location
Hardware. Required	microprocessor		
Program:	FORWARD	ORDER "	
Address	DPCoole.	operand.	Hex Code.
2 000	LXI	operand. H. 2500:	21.
2001			00
2002			25
2003	LXI.	B 2600.	0
2004			0 0
2005			26.
2006	MVI	D 05	16
2007			05
2008.	MOV	A, M	7E:
2009	STAX	B.	02
200A	INX	H	23.
200 B	INX	B	03
200C	DCR	D.	15
2002	INZ	2008.	<u> </u>
200E			08
2000F.			20.
2010	HLT.		76.
			Page No

AL ANDRON SA		
	Student Name	 . Roll No.:
The state of the s	Experiment No.	 Date

	Reverse Order		
Address	OPcode.	operand	Hex Code
2000.	LXI	H 2500.	21.
2001.			00
2007			25'
2003	LXI.	B 26009	01
2004			084.
2005'			26
2006.	MUI	D 05	16.
2007			05
2008	MOU	A, M	78
2009	STAX	B.	02.
200A	INX	H.	23
200B	DCR	B.	OB.
200 (	DCR	D	15
200 D	JNZ	2008.	C2
200 E			08
200 F			20
2010	HLT.		7-6
			Page No