

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2024****Subject Code:2150707****Date:23-05-2024****Subject Name:Microprocessor and Interfacing****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Differentiate between GDT and LDT.	03
	(b) Explain stack and subroutine with suitable example.	04
	(c) Draw and explain the timing diagram of STA 3154 H 8085 instruction.	07
Q.2	(a) Differentiate hardware and software interrupt.	03
	(b) Explain the architecture of SUN SPARC.	04
	(c) Draw & explain the architecture of Pentium processor.	07
	OR	
	(c) Explain programmable interrupt controller 8259A.	07
Q.3	(a) List the main features of ARM processor	03
	(b) Explain 8085 branch instructions with suitable examples.	04
	(c) Write an 8085 ALP to convert BCD number to binary hex number.	07
	OR	
Q.3	(a) What is page table? How it works?	03
	(b) Explain PUSH and POP instructions of 8085.	04
	(c) Explain various addressing modes of 8085 microprocessor with suitable examples.	07
Q.4	(a) Explain flag register of 8086 microprocessor.	03
	(b) Explain 8085 data transfer instructions with examples.	04
	(c) Write an ALP to find minimum of two 8 bit numbers in 8085 microprocessor.	07
	OR	
Q.4	(a) Why program counter & stack register are 16 bit register?	03
	(b) Write an 8085 program to add two 16-bit nos. stored in memory locations 3000H and 2500H respectively.	04
	(c) Draw and explain the architecture of 80386.	07
Q.5	(a) List features of 80486 microprocessor.	03
	(b) Explain flag register of 8085.	04
	(c) Sketch and explain the internal block diagram of 8086.	07
	OR	
Q.5	(a) List down various segment registers of 8086.	03
	(b) Explain various machine cycles executed by 8085?	04
	(c) Sketch and explain the internal block diagram of 8085.	07
