

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2140707

Date: 06/06/2017

Subject Name: Computer Organization

Time: 10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	Short Questions	14
	1 Define term RTL.	
	2 What is computer organization?	
	3 Define Term: Sequencer.	
	4 Explain Immediate instruction.	
	5 Explain Delay load.	
	6 What is PSW (flag).	
	7 Define Assembler.	
	8 Give any three feature of CISC	
	9 Explain term: Pipeline Conflict.	
	10 Explain Accumulator.	
	11 What is register stack?	
	12 Give three Advantage of CD-ROM.	
	13 Explain Micro operation.	
	14 Define pseudo instruction.	
Q.2	(a) Explain Gray Code.	03
	(b) Write note on memory interleaving	04
	(c) Explain Instruction cycle with flowchart.	07
OR		
	(c) Explain first pass of an assemble with flowchart.	07
Q.3	(a) Explain CLA, ISZ, INP instruction.	03
	(b) Compare SIMD and MIMD.	04
	(c) Explain control unit of basic computer and its working with diagram.	07
OR		
Q.3	(a) Explain vector operation.	03
	(b) Explain Direct mapping cache.	04
	(c) Explain different addressing mode with example.	07
Q.4	(a) Explain characteristics of RISC.	03

	(b)	Explain Daisy chain arbitration.	04
	(c)	Explain BCD Adder with its block diagram	07
		OR	
Q.4	(a)	Explain push and pop operation on stack.	03
	(b)	Compare SRAM and DRAM.	04
	(c)	Explain Booth's algorithm with flowchart.	07
Q.5	(a)	Explain parallel processing.	03
	(b)	Explain different types of Interrupts.	04
	(c)	Explain paging and address translation with example.	07
		OR	
Q.5	(a)	Explain subroutine call and return with micro-operation.	03
	(b)	Explain Flynn's classification of computer.	04
	(c)	Explain Inter-process communication	07
