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**

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