GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII (NEW) - EXAMINATION – SUMMER 2018

Subject Code: 2181006   **Date: 04/05/2018**

Subject Name: Advance Microprocessor(Departmental Elective - III)

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	**(a)**	What is Instruction queue and pipelining in 8086?	**03**
	(b)	State the difference between Macro and Procedure.	**04**
	(c)	Draw and explain internal block diagram of 8086 Microprocessor.	**07**
Q.2	**(a)**	Define a small Macro for push all registers and flag on stack.	**03**
	(b)	Explain Following Instructions: (i) CMP (ii) LEA	**04**
	(c)	What do you mean by addressing modes? Explain8086 addressing modes with examples.	**07**
		OR	
	(c)	Explain all Flag registers of 8086 microprocessor	**07**
Q.3	**(a)**	Write operation of instruction: MOV ARRAY[CX], BX	**03**
	(b)	Explain following directives: (i) DB (ii) ENDS (iii) ASSUME (iv) EXTRN	**04**
	(c)	What are the major difference between an 8086 operating in minimum mode and maximum mode? Explain signals are used in minimum mode.	**07**
		OR	
Q.3	**(a)**	Explain following pins for 8086: (i) READY (ii) MN/MX'	**03**
	(b)	Describe the 8086 bus operations required to write a word to address 04373H.	**04**
	(c)	Interface two chips of 16K x 8 ROM and two chips of 32K x 8 RAM with 8086, select ROM address suitably and RAM must start with E0000H.	**07**
Q.4	**(a)**	State differences between hardware and software interrupt	**03**
	(b)	Write an assembly language programe to generate Fibonacci series.	**04**
	(c)	What are the difference between near procedure and far procedure? Write an assembly code for Add two 8-bit numbers using far procedure only.	**07**
		OR	
Q.4	**(a)**	Discuss interrupt priories with respect to 8086 microprocessor.	**03**
	(b)	Write an assembly program to find Palindrome numbers from array.	**04**
	(c)	Draw & enlist interrupt vector table, and also explain dedicated interrupts Type-0 to Type-4 interrupts of the 8086.	**07**
Q.5	**(a)**	Explain the format of segment descriptor.	**03**
	(b)	Enlist the salient features of Pentium-III	**04**
	(c)	Draw and explain pin diagram of 80286 microprocessor, and also explain its protected-mode operation.	**07**

OR

Q.5	**(a)**	Explain Hyper threading technology with respect to Pentium-IV processor.	**03**
	(b)	Explain PEREQ and PEACK' signals with respect to 80286 Microprocessor.	**04**
	(c)	Explain the basic concept of 80386 paging system.	**07**

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