Enrollment No. _____   Exam Seat No._____

KADI SARVA VISHWAVIDYALAYA
BE SEMESTER-V Regular Examination NOV-2016
Subject Code: CE-502
Subject Name: ADVANCED PROCESSORS

Date: 11/11/2016   Time: 10:30 a.m. to1:30 p.m.   Total Marks: 70

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1 (A) Draw and Explain 8085 Pin Diagram.   [5]
     (B) Write Short note on Maximum mode operation of 8086.   [5]

     (C) Discuss the Segmented memory organization of 8086 Microprocessor.   [5]

OR

     (C) Explain reentrant and recursive procedures with an example.   [5]

Q-2 (A) 1. What do you mean by segment override prefix in 8086 architecture? Explain   [3]
              giving an example.
          2. Differentiate between MOV AX, 3254H and MOV AX,[3254H].   [2]

     (B) Explain following pins and instructions : HOLD, READY,XLAT,RQ/GT,XCHG [5]

OR

     (A) 1. Comment on the operations of TEST pin and WAIT instruction of 8086. [3]
          2. Differentiate between intrasegment and intersegment Jump.   [2]
     (B) Explain memory banks for 8086 with diagram.   [5]

Q-3 (A) 1. How does 8086 determine whether instruction is 8-bit or 16-bit?   [3]
          2. What happens with prefetch queue when JUMP or CALL instruction is   [2]
              received by EU? Why?
     (B) List out dedicated interrupt and explain type-0, type-1.   [5]

OR

     (A) Write an Assembly language program to find factorial of a given number. [5]

     (B) 1. If the stack segment register contains 3000H and the stack pointer   [3]
              register contains 2400H.What is the physical address of the top of the
              stack?
          2. What is the difference between RET and IRET instructions?   [2]

Q-4 (A) Draw and explain functional block diagram of 80386 microprocessor in brief. [5]

(B) Discuss the features of RISC Architecture. [5]

(C) Write an Assembly language program to Reverse the String and display it. [5]

OR

(C) List out units of 80486, discuss any two of them in short. [5]

Q-5 (A) Describe paging mechanism in 80386. [5]

(B) What is TLB? Discuss it with example [5]

OR

(A) Explain the meaning and use of Selector and GDTR with proper example. [5]

(B) Compare SRAM with DRAM [5]

Q-6 (A) What is TSS (Task State Segment)? Explain in detail. [5]

(B) Draw and explain Flag register of 80286. [5]

OR

(A) Write an Assembly language program to print Fibonacci series. [5]

(B) Discuss the features of Pentium Processor in brief. [5]

---ALL THE BEST---

KADI SARVA VISHWAVIDYALAYA

BE SEMESTER-V Regular Examination NOV/DEC-2015
Subject Code: CE-502
Subject Name: ADVANCED PROCESSORS

Date: 21/11/2015   Time: 10:30 am. to 1:30 pm.   Total Marks: 70

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1 **(A)** Draw architecture of 8085,and discuss related to queue with respect to 8086 [5]

(B) Define terms [5]
(1.Address bus, 2.Data bus, 3.Control bus, 4.Program counter, 5.Accumulator)

(C) What is the use of direction flag in 8086? Which instruction is used to set direction flag? Also make Sketch of Flag Register(8086) [5]

OR

(C) Compare Microprocessor with microcontroller [5]

Q-2 **(A)** 1. What is pipelining? [2]
2. Calculate the physical address for following registers [3]
   CS=2050H   DS=3000H   SS=1000H
   SP=1515H   IP=1234H   DI=2120H

(B) Compare the minimum and maximum modes of the 8086. [5]

OR

(A) Explain Instructions (LDA,STA, MOV, XCHG, LEA) [5]

(B) Explain memory banks for 8086 with diagram [5]

Q-3 **(A)** Explain the Microprocessor Family w.r.t 80x86. [5]

(B) What are the steps taken by 8086 when interrupt comes? [5]

OR

(A) Write an ALP to print Fibonacci Series [5]

(B) List Interrupt priorities in 8086 and explain NMI [5]

Section-II

Q-4 (A) Explain page table, page directory entry with example [5]

(B) Different between the 8086 and 80286 [5]

(C) What is MSW and how it is useful in protected mode? [5]

OR

(C) List out units of 80486, discuss any four of them in short [5]

Q-5 (A) How virtual mode can be use in 80386?, discuss mode in which processor gives fully functionality [5]

(B) What is TLB? Discuss it with example [5]

OR

(A) Explain Cache Memory, compare SRAM with DRAM [5]

(B) Draw and explain 8259A [5]

Q-6 (A) What is CPSR, SPSR? Explain MSB bit (last four)of CPSR [5]

(B) Write ALP to find addition of two arrays and store its results in third array [5]

OR

(A) Discuss about Basics of ARM Processor, & make sketch of its Memory Organization [5]

(B) Write Assembly code for perform an expression $x=(a+b)-c$ w.r.t. ARM [5]

---ALL THE BEST---

Seat No. _____   Enrl. No. _____

KADI SARVA VISHWAVIDHYALAYA
BE SEMESTER-V Regular Examination NOVEMBER-2014
Subject Code: CE-502
Subject Name: ADVANCED PROCESSORS

Date: 14/11/2014   Time:10:30 am. to 1:30 pm.   Total Marks: 70

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1 **(A)** Compare Microprocessor with microcontroller.   [5]

(B) Sketch 8085 Intel microprocessor and explain its Flag register.   [5]

(C) Explain following instructions. (MOV, MVI, LDA, STA, LXI)   [5]

OR

(C) 1. What is pipelining?   [1]
2. If the stack segment register contains 3000H and the stack pointer register contains 2400H. What is the physical address of the top of the stack?   [2]
3. What is the use of direction flag in 8086? Which instruction is used to set direction flag?   [2]

Q-2 **(A)** What do you mean by addressing modes? List the 8086 addressing modes and explain any three of them with an example.   [5]

(B) Draw an architecture of 8086 microprocessor.   [5]

OR

(A) Explain memory banks for 8086 with necessary diagram.   [5]

(B) What is segmentation? List the various segment registers in 8086 and explain their role   [5]

Q-3 **(A)** What is an Interrupt? What are the steps taken by 8086 when interrupt comes?   [5]

(B) Which signals are common to both minimum and maximum mode of 8086/88   [5]

OR

(A) Write ALP to transfer data block (16 values) from one memory location to another, where offset value from 0300h to 0800h   [5]

(B) Explain the maximum mode of 8086 microprocessor system with the help of pins functionality   [5]

Section-II

Q-4 (A) What do you mean by Static RAM? Compare it with DRAM. [5]

(B) Compare 8086 with 80286. [5]

(C) Lists out units of 80486, discuss any four of them in short. [5]

OR

(C) Short note: DMA Controller. [5]

Q-5 (A) Explain components of 80286 architecture. [5]

(B) Draw and explain 8254 timer/counter. [5]

OR

(A) Draw and explain Flag register of 80286. [5]

(B) Draw and explain 8259A Interrupt controller. [5]

Q-6 (A) ARM Processor w.r.t. General information, register set, instruction set. [5]

(B) Explain Segmentation unit and Paging unit of 80386. [5]

OR

(A) Discuss about ARM Processor Operating modes. [5]

(B) How virtual mode can be use in 80386? discuss mode in which processor will gives fully functionality [5]

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KADI SARVA VISHWAVIDYALAYA

BE SEMESTER-V ATKT Examination APRIL-2015
Subject Code: CE-502

Subject Name: ADVANCED PROCESSORS

Date: 21/04/2015   Time:10:30 am. to 1:30 pm.   Total Marks: 70

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1	(A)	Draw and explain architecture of 8086	[5]
	(B)	Explain memory banks for 8086 with diagram	[5]
	(C)	Explain different categories of Assembly Language Instruction Set	[5]

OR

	(C)	Explain clock related pins of 8086	[5]

Q-2	(A)	1. What is pipelining?	[5]
		2. Find physical address for CS:IP 3000:123A H	
	(B)	Compare Microprocessor with microcontroller	[5]

OR

	(A)	What is segmentation? List the various segment registers in 8086 and explain their role	[5]
	(B)	Explain the addressing modes of 8086 with example (any three)	[5]

Q-3	(A)	How does 8086 will response to interrupt?	[5]
	(B)	What is the difference between RET and IRET instructions?	[5]

OR

	(A)	List out dedicated interrupt and explain type-0, type-1	[5]
	(B)	Write an ALP to find factorial of given number	[5]

Section-II

Q-4 (A) Different between the 8086 and 80286 **[5]**

     (B) List out features of 80286, explain its operation in short **[5]**

     (C) Explain 80386 descriptor **[5]**

OR

     (C) Draw and Explain in short "Priority interrupt controller" **[5]**

Q-5 (A) Differentiate SRAM and DRAM **[5]**

     (B) Short note : DMA Controller **[5]**

OR

     (A) How virtual mode can be use in 80386?, discuss mode in which processor gives fully functionality **[5]**

     (B) What is TLB? Discuss it with example **[5]**

Q-6 (A) Explain features of RISC Architecture **[5]**

     (B) Discuss about ARM Processor Operating modes **[5]**

OR

     (A) Explain virtual 8086 mode with respect to Intel 80486 **[5]**

     (B) Draw 3-stage pipeline architecture of ARM **[5]**

GOOD LUCK