# C.U.SHAH UNIVERSITY
## Winter Examination-2018

**Subject Name: Advanced Micro-Processors**

**Subject Code: 4TE05AMP1**          **Branch: B.Tech (CE,IT)**

**Semester: 5    Date: 05/12/2018          Time: 10:30 To 1:30          Marks: 70**

Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

**Q-1          Attempt the following questions:                                    (14)**
   **a)** Define: Instruction cycle
   **b)** Define:GDT
   **c)** Define: Descriptor
   **d)** Define: Embedded system.
   **e)** True/False:  80386 is not 4 byte processor.
   **f)** In which mode 80386 do support memory management and protection mechanism?
   A. Direct mode          B. indirect mode    C. Protected mode        D. Real mode
   **g)** _____ instruction will increment content of Register pair
   A. INR                  B. INC                  C. INP                  D. INX
   **h)** _____ is 1 byte instruction.
   A. MVI                  B. MOV                  C. STA                  D. ADI
   **i)** When I0/M=0, where M is active low, which type of operation MP will performed?
   A. I/O and Memory    B. I/O                  C. Input                D. Memory
   **j)** The paging unit is enabled only in_____.
   A. Virtual mode        B. addressing mode
   C. Real mode           D. Protected mode
   **k)** The first processor with inbuilt floating point unit is_____.
   A. 80386                B. 80286                C. 8086                D. 80486
   **l)** The CPU has to wait until the execution stage to determine whether the condition is met in____ branch
   A. conditional   B. unconditional   C. Pipelined execution   D.None of mentioned
   **m)** The instruction that is used for finding out the codes in case of code conversion problems is_____
   A. XCHG                B. XLAT                C. XOR                  D. JCXZ
   **n)** ___is/are software interrupts.
   A) RST 0 – 7  B)  RST 5.5 - 7.5  C) INTR, TRAP

**Attempt any four questions from Q-2 to Q-8**
**Q-2          Attempt all questions                                              (14)**
   **(a)** Write a note on different addressing mode supported by 8086 MP.

**(b)** Write 8086 assembly language program to display more than one message using MACRO.

**Q-3** **Attempt all questions** (14)
**(a)** Enlist and explain features of Pentium PRO and Pentium MMX processor processors.
**(b)** Draw and Explain register set of x86 family (80286, 80386, 80486) with flag register.

**Q-4** **Attempt all questions** (14)
**(a)** Explain paging mechanism of x86 family processors.
**(b)** Write a note memory protection mechanism in x86 families.

**Q-5** **Attempt all questions** (14)
**(a)** Draw pin diagram of 8085 MP and explain only interrupt related pin.
**(b)** What is instruction? Give example of One Byte, Two Byte and Three Byte instruction with justification.

**Q-6** **Attempt all questions** (14)
**(a)** Write a note on Memory bank system.
**(b)** What is assembler directive? List out its category and explain following directive: EVEN, LENGTH, ASSUME, GROUP.

**Q-7** **Attempt all questions** (14)
**(a)** Explain following 8086 instruction:
AAA, AAM, iDIV, XCHG,CMP,ROL,NEG
**(b)** Enlist features of 80286, 80386, 80486 processor.

**Q-8** **Attempt all questions** (14)
**(a)** Explain Demultiplexing process of AD7- AD0 bus system.
**(b)** Write a note on 1. Bus System structure of 8085 MP. 2. Different characteristics of Microprocessor.