USHA RAMA COLLEGE OF ENGINEERING & TECHNOLOGY

QUESTION BANK

UNIT-1

1. a) Explain the function of QS_0 and Qs_1 signals of 8086.
   b) Present the architectural differences between 8086 and 8088.
   c) Draw and discuss read cycle timing diagram of 8086 in minimum mode.

2. a) Draw a neat sketch and explain the architecture of 8086?

   b) Write the advantages of segmentation in a microprocessor environment. Explain segmentation using overlapped and non-overlapped segments.

3. Explain the instruction set of 8086 microprocessor
   a) POP   b) AAA   c) CMP   d) CWD   e) ROL

4. Discuss the assembler directives of 8086 micro processor
   a) PROC   b) DQ c)DUP   d)EQU   e)ENDS

5. Write an assembly language program in 8086 to perform addition, subtraction, multiplication and division of the given operands. Perform BCD operation for addition and subtraction.

6. a)Write an ALP to authenticate the given password .
   b) Describe the procedure to code intersegment jump and intra segment jump

7. a) Draw the functional pin diagram of 8086 microprocessor and explain the functions of each pin.
   b) Draw and discuss interrupt structure of 8086 in detail.

8. Write an assembly language program in 8086 to generate a saw tooth wave with 1 KHz frequency? Give the necessary circuit set up with a DAC.

9. a) what is BSR mode of operation of 8255? Explain.
   (b) Explain the initialization sequence of 8259A using Flow chart?

10. (a) Explain by drawing the architecture of 8255 PPI?
    (b)Draw and explain the internal Architecture of 8257?

11. a) Write the salient features of strobed I/O mode of operation of
8255. Also present the input and output control signal definitions.
b) Design an interface between 8086 CPU and two chips of 16K X 8
EPROM and two chips of 32K X 8 RAM. Select the starting address of
EPROM suitably. The RAM address must start at 00000H.

12. (a) Discuss the serial data transmission standards and their
specifications.
(b) With a neat block diagram, explain the architecture of 8251 USART.