Q.2   a. Explain the architecture of 8086 with suitable diagram.
Answer: 1.2 of Text Book I

       b. Draw the register organisation of 8086 & explain typical application of each register.
Answer: 1.2 of Text Book I

Q.3   a. Explain the following instructions with eg: and indicate its addressing mode.
           (ii) XCHG BL,83H[SI]
           (iii) AAD 52H[BX], CX
           (iv) POP [SI]
Answer: 4.2, 4.3 of Text Book I

       b. Explain the flags of 8086 and write the instructions for set and reset.
Answer: 8.1 of Text Book I

Q.4   a. What is an interrupt? Explain hardware and software interrupt of 8086.
Answer: 11.1, 11.3 of Text Book I

       b. What is conditional and unconditional jump instruction? Explain with example.
Answer: 10.1, 10.3 of Text Book I

Q.5   a. What are the functions of the following pins of numeric co-processor 8087:
           (i) $\overline{BHE}$/S7
           (ii) READY
           (iii) INT
           (iv) RESET
Answer: 12.3 of Text Book I

       c. Explain any two compare instructions used in 8087 instruction bit.
Answer: 13.3 of Text Book I

Q.6   a. Write an 8086 assembly language program to sort in descending order using selection sort.
Answer: 15.4 of Text Book I

       b. Write an 8086 assembly language program to perform addition and subtraction of two signed numbers which are 64 bit in size.
Answer: 14.1 of Text Book I

       c. Write the features of linking and single step execution in assembly program.
Answer: Page Number 268, 269 of Text Book I

Q.7   a.   Write an 8086 assembly language program to compute factorial of a given 8 bit integer at a byte location using recursion.

Answer: 17.1 of Text Book I

      b.   Explain the various method of accessing IBM PC hardware.

Answer: Page Number 291 of Text Book I

      c.   Explain various PTR directive used in 8086.

Answer: Page Number 311 of Text Book I

Q.8   a.   Write a C program using DOS function to obtain size (in bytes) of a given file. Display the message indicating size of file on the screen.

Answer: 21.3 of Text Book I

      b.   Write the approach methodology & program in 'C' to create a subdirectory using DOS interrupt.

Answer: 21.2 of Text Book I

      c.   Write the overview of 8087 coprocessor.

Answer: 20.1 of Text Book I

Q.9   a.   Write short notes on any **Two**:
          (ii) 80386
          (iii) 80486

Answer: 9.2, 10.2, 11.1 of Text Book II

      b.   Explain the architecture of Pentium processor with suitable block diagram.

Answer: 11.3 of Text Book II

TEXT BOOKS

1. Advanced Microprocessors & IBM-PC Assembly Language Programming, K. Udaya Kumar and B.S. Umashankar, TMH, 1996

2. Advanced Microprocessors and Peripherals, A.K. Ray and K.M. Burchandi, TMH, 2000