Q2 (a) Write an assembly language program to move a block of data from one section of memory to another section of memory using 8085 microprocessor.

**Answer** Article 14.1-14.6 of Textbook

Q2 (b) Write an assembly language program to find the BCD of a binary number.

**Answer** Article 16.7 of Textbook

Q3 (c) Mention various registers used in 8085.

**Answer** Article 4.3.1-4.4 of Textbook

Q5 (a) Mention various types of interrupts in 8085. Give their respective priorities, trigger mode (edge or level) and interrupt type (vectored or non-vectored).

**Answer** Page Number 283 of Textbook

Q5 (b) Explain RIM and SIM instructions used in interrupt.

**Answer** Page Number 297-301 of Textbook

Q5 (c) Explain the control port of 8255.

**Answer** Page Number 328-330 of Textbook

Q6 (a) Explain the features of logic controller interface. Write a program for decimal counter using logic controller.

Answer Page Number 344 - 349 of Textbook

- Q6 (b) compare the following:-
  - (i) Interface keyboard using tri state buffer
  - (ii) Interface a matrix keyboard

**Answer** Page Number 377 – 381 of Textbook

Q6 (c) Mention any two limitations of matrix key board.

**Answer** Page Number 381 of Textbook

Q7 (a) Explain the role of Initialization command words (ICW1 to ICW4) used in 8259.

**Answer** Article 23.5.1-23.5.5 of Textbook

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Q7 (b) Give the format of control register and status register of 8257.

**Answer** Page Number 449, 451of Textbook

Q7 (c) Explain any two data transfer types used in DMA.

**Answer** Page Number 456 – 457 of Textbook

Q8 (a) Explain Mode 0, Mode1, Mode 2 and Mode 3 of 8253 timer.

**Answer** Article 25.4 to 25.7 of Textbook

Q8 (b) Explain the MODE and COMMAND instructions of 8251.

**Answer** Article 26.1 - 26.7 of Textbook

Q8 (c) Compare synchronous and asynchronous transmissions in 8251.

Answer Page Number 498,486,478-486 of Textbook

Q9 (a) Explain the various bits of PSW register of 8051.

Answer Page Number 555 - 556 of Textbook

- Q9 (b) Explain the following addressing modes of 8051(with examples)
  - (i) Immediate
  - (ii) Direct
  - (iii) Indexed
  - (iii) Implied

Answer Page Number 557 - 560 of Textbook

Q9 (c) Draw the block diagram of 8051.

**Answer** Page Number 549 of Textbook

## **Text Book**

The 8085 Microprocessor; Architecture, Programming and Interfacing, K. Udaya Kumar and B. S. Umashankar, Pearson Education, 2008

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