

7. Write short notes on :

5×3

- (a) DMA controller ;
- (b) Latch ;
- (c) Maskable and Non-maskable Interrupt.

NEW

2017

BCA 3rd Semester Examination

MICROPROCESSOR

PAPER—2105

Full Marks : 70

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any four from the rest.

1. Answer any five questions :

5×2

- (a) Illustrate SIM instruction.
- (b) Compare CALL and JMP instructions.

(c) Distinguish higher and lower level language.

(d) What is tri-state buffer ?

(e) What is the function of 8085 register PC and SP ?

(f) What is the function of auxiliary carry flag ?

(g) Write down the function of HOLD signal of 8085.

(h) What is the disadvantage of assembly language ?

2. (a) Explain memory mapped I/O and I/O mapped memory scheme.

(b) Explain DAA instruction.

(c) What is vector interrupt ? Give example.

(d) Compare PUSH and POP instruction. $4+3+4+4$

3. (a) Explain 8085 programming model.

(b) What is fold back memory ? Explain with example.

(c) Draw the timing diagram of instruction MVIC, 35H. $5+5+5$

d in reg. Implic

4. (a) What is subroutine ? Which instructions are used in 8085 microprocessor to implement subroutine ?

(b) Write a program in 8085 assembly language to find I's complement of a 8 bit number.

(c) Explain the different addressing modes of 8085 microprocessor. $5+5+5$

5. (a) Explain the architecture of 8086 microprocessor with diagram.

(b) Explain different addressing modes of 8086. $10+5$

6. (a) Write a program for 1ms delay and find the amount of time needed for STA instruction where the clock speed of 8085 is 2 MHz.

(b) What do you mean by Mode 0, Mode 1 and Mode 2 of 8255 ?

(c) Write a program in 8085 assembly language to multiply two 8 bit numbers. $7+5+3$