

27/4/13

B.E./B.Tech. (FT) DEGREE END SEMESTER EXAMINATIONS, APR/MAY 2013

BRANCH: ELECTRONICS AND COMMUNICATION ENGINEERING

FIFTH SEMESTER

BM9305 – MICROPROCESSOR, MICRO CONTROLLER AND SYSTEM DESIGN

34

REGULATIONS: 2008

Time: 3 Hours

Max.Marks: 100

Answer ALL questions

PART A – (10 x 2 = 20 marks)

1. What is the function of IO/M signal in the 8085?
2. Compare 8085 and 8086
3. What are the additional flags available in 8086 and List out their purpose?
4. How the 20 bit effective address is calculated in 8086 processor
5. What are the Control signals used for DMA operation?.
6. List the operating modes of 8254 timer.?
7. List out the salient features of 8051 Microcontroller?
8. Differentiate microprocessor and microcontrollers
9. How many address lines in a 4096 x 8 EPROM CHIP
10. How do you control the speed of a DC motor

PART B – (5 x 16 = 80 marks)

11 (i) Draw the timing diagram of any instruction of your choice which is used in 8085 microprocessor

(8)

(ii) Explain the Hardware Architecture of 8085 with a neat diagram

(8)

12 (a) Explain the instruction set of 8086 in detail.

(OR)

12 (b) Explain the interrupt structure of 8086 with IVT

13 (a) Draw the block diagram of programmable interrupt controller and explain its operations.

(OR)

13 (b) Draw the Block diagram and explain the operations of 8251 serial communication interface..

14 (a) Describe the architecture of 8051 with a neat diagram.

(OR)

14 (b) Explain the interrupt structure, SFR and timers of 8051

15 (a) With a circuit diagram, discuss in detail the stepper motor interfacing with 8051.

(OR)

15 (b) With a circuit diagram, describe the 8051 system design to observe or measure any one biological parameters of your choice
