

B.E/B.TECH DEGREE EXAMINATION, NOVEMBER/DECEMBER 2008

Fifth semester

(regulation 2004)

Electronics and communication engineering

EC 1303 – MICROPROCESSORS AND ITS APPLICATIONS

(common to B.E (part-time) fourth semester regulation 2005)

Time: three hours maximum: 100 marks

Answer all questions

Part a – (10 x 2 = 20 marks)

1. distinguish between immediate and implied addressing modes of 8085
2. what are the software interrupts of 8085?
3. list the functions of 8251 serial communication interface.
4. what are the control signals used in A/D converter?
5. list the flags of 8086.
6. give any four string instructions
7. what are the register banks in 8051 microcontroller?
8. state the operating modes of 8051 microcontroller?
9. list any two instructions of 8051 that affect all the flags of 8051
10. what are the operating modes of serial port of 8051?

Part b – ( 5 x 16 = 80 marks )

11. (a) . 1 . explain the architecture of 8085. [8 marks]
2. explain the timing diagram of I/O read machine cycle of 8085. [8 marks]

Or

- (b). 1. with neat diagram, explain the memory interfacing to 8085. [8 marks]
2. write an assembly language program to add two BCD data using 8085 [8 marks]

12. (a) explain the block diagram , function and programming of 8279 keyboard and display controller in detail. [16 marks]

Or

(b) 1. explain the D/A converter interfacing with 8086. [6 marks]

2. describe the features and signals of RS 232 C . compare this bus standard with GPIB. [10 marks]

13. (a) 1 .with neat diagram , explain the 8086 architecture. [8 marks]

2. with suitable examples, discuss about the addressing modes supported by 8086. [8 marks]

Or

(b) 1. discuss about data transfer and program control instructions of 8086. [8 marks]

2. explain the interrupts of 8086 in detail. [8 marks]

14. (a) describe the function of major hardware components of 8051 microcontroller [16 marks]

Or

(b) 1. explain serial data I/O of 8051 micro controller. [8 marks]

2. describe the external memory and its interfacing with 8051. [8 marks]

15. (a) 1. discuss in detail the 8051 instruction set an addressing modes [10 marks]

2. explain the programming of counter and timer of 8051. [6 marks]

Or

(b) with neat diagram , explain the interfacing of keyboard and stepper motor with 8051. [16 marks]