

Bharati Vidyapeeth's College of Engineering for Women, Pune.

Electronics and TeleCommunication Department

Unit Test I T.E. Academic Year: 2011-2012

Subject: MCA

Duration: 1 hour

Marks: 30

Solve any Two

- 1) A) Differentiate between Harvard & von Neuman Architecture (8)
B) Compare RISC and CISC Processor (7)

- 2) A) State and explain different addressing modes of 8051. Illustrate with an example (8)
B) Explain the instruction in detail
1) MOVX 2) SETB 3) DA A 4) CLR (7)

- 3) A) Compare Microprocessor and Microcontroller in brief ? (8)
B) W.A.P for addition of 5 BCD numbers stored in RAM locations starting at 50H. Result must be a BCD (7)

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Electronics and TeleCommunication Department

Unit Test II T.E. Academic Year: 2011-2012

Subject: MCA

Duration: 1.5 hour

Marks: 50

Solve any Two

- 1) A) Explain 8051 port structure with neat diag. (8)
B) With the help of IE & IP registers, explain the interrupt structure of 8051 (8)

- 2) A) Explain the timer/counter control logic with a neat dia. Also explain the timer modes (8)
B) W.A.P. to send message 'BVCOEW' to com port of pc at 2400 baud rate. Assume XTAL freq = 11.0592MH (8)

- 3) A) Interface 2 line, 16 char LCD to 8051. Draw a neat interfacing dia. & W.A.P to display a Message 'Hello' on lcd (9)
B) Explain the features of RS 232 (9)

OR

- 3) A) Explain the instruction in detail
1) CJNE 2) ACALL 3) JNZ 4) JB 5) RRC (9)
B) W.A.P to interface an LED to pin P1.0 & flash it after every 1ms. Assume XTAL=11.0592MH (9)

BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING FOR WOMEN, PUNE-43

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

UNIT TEST-1

TIME: 1 HOUR

THIRD YEAR (T.E.)

Marks-30

Micro Controller and Applications

- Q.1 a) Compare Von Neumann and Harvard architecture (5)
- b) Compare RISC Vs CISC processor (5)
- c) Explain in brief various resources of 8051 (5)

OR

- Q.2 a) Compare microprocessor and microcontroller (7)
- b) List various 8 bit microcontrollers with features of different families. (8)

- Q.3 a) Interface 8K EPROM and 8K RAM to microcontroller 803 for the following addresses
- i) EPROM starting address - 0000H
- ii) RAM starting address – A000H (8)
- b) Explain the structure of 128 bytes of internal memory of MCS-51 (7)

OR

- Q.4 a) Explain the interrupts for 8051 along with priority (7)
- b) Explain timers in 8051. Find out Hex numbers to be loaded in timer register to produce delay of 1 msec? (8)

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UNIT TEST-2

TIME: 1 HOUR

THIRD YEAR (T.E.)

Marks-30

Micro Controller and Applications

Q.1 a) Explain different addressing modes with example (7)

b) Explain the following instructions (8)

1) LCALL & RET

2) MOVC A,@A+PC

OR

Q.2 a) Explain the terms Simulator, Emulator, Cross assembler (7)

b) Explain the following instructions (8)

1) DJNZ R2, ADDRESS

2) MOVX @DPTR, A

Q.3 a) Explain I2C bus standard. (7)

b) Write a program for interfacing LCD(5x7 matrix) and display a message "WELCOME " in 8 bit mode also draw interfacing diagram (8)

OR

Q.4 a) Compare RS 232 AND RS 485 Bus standard (7)

b) Explain the interfacing with stepper motor and write a program to rotate the motor in the clockwise direction. (8)