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MANIPAL INSTITUTE OF TECHNOLOGY

(Constituent Institute of Manipal University) MANIPAL-576104



FOURTH SEMESTER B.E (CS&E) DEGREE MAKE -UP EXAMINATION

JULY 2008

PC SYSTEMS(CSE 208)

(REVISED CREDIT SYSTEM)

22-07-2008

TIME : 3 HOURS

MAX.MARKS : 50

Instruction to Candidates

- Answer **any five** full questions
- Missing data can be suitably assumed

1a. Define Register mode and explain the following register modes with an example each.

- i. DIRECT ii. REGISTER iii. IMMEDIATE (4)

1b. Explain the following:

- i. 8086 instructions: XLAT, TEST, SCAS
- ii. Directives: SEGMENT, OFFSET, DD (6)

2a. Write an assembly language program to arrange N 16 bit numbers in the ascending order.

(4)

2b. With diagram explain the architecture of 8086.

(6)

3a. Write an assembly language program to delete a character from a specified position in a given string

(4)

3b. With timing diagram explain the sequence of operations for an 8086 output instruction in min mode.

(6)

4a. Explain the following :

i. DOS INT 21H functions: 00h, 40H, 01H, 0AH

ii. BIOS INT 10H functions: 00H, 0AH

(6)

4b. i. With diagram explain the timings for max mode RQ/GT signal.

iii. Draw the pin diagram of 8086 min mode.

(2+2=4)

5a. Briefly explain the working of mode 1, mode3 and mode 5 of 8253 timer.

(6)

5b. Write an assembly language program using 8087 instructions to calculate the volume of a sphere.

(4)

6a. Explain the components of a segment register of 80286.

(6)

6b. Explain the following 8087 instructions:

i. FISTP ii. FPATAN iii. FIST iv. FSTSW

(4)
