

Total No. of Questions : 12]

P1136

SEAT No.:

May - June 2012

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[Total No. of Pages : 3

[4163]-343

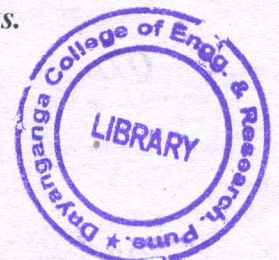
T.E. (Computer Engineering)
MICROPROCESSOR AND MICROCONTROLLER
(2008 Pattern) (Sem. - I)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) In section-I, attempt Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4, Q. No. 5 or Q. No. 6.
- 2) In section-II, attempt Q. No. 7 or Q. No. 8, Q. No. 9 or Q. No. 10, Q. No. 11 or Q. No. 12.
- 3) Answers to the two sections should be written in two separate books.
- 4) Neat diagrams must drawn wherever necessary.
- 5) Figures to the right indicate full marks.
- 6) Assume suitable data if necessary.



SECTION - I

- Q1) a) With the help of block diagram, explain super-scalar architecture of Pentium Processor. [8]
- b) What is the function of each of the following pins. [6]
- i) $\overline{\text{PBGNT}}$.
 - ii) $\overline{\text{PEN}}$.
 - iii) $\overline{\text{PCHK}}$.
- c) Describe the floating point data types in Pentium. [4]

OR

- Q2) a) Explain instruction and data cache organization of Pentium. [6]
- b) Compare 80386, 80486 and Pentium based on architecture. [6]
- c) Explain Pentium RISC Features. [6]
- Q3) a) Draw and explain timing diagram of pipelined read cycle of Pentium processor. [8]
- b) Describe following addressing modes in Pentium with suitable examples. [8]
- i) Direct addressing.
 - ii) Based Addressing.
 - iii) Based indexed with displacement addressing.
 - iv) Port addressing.

P.T.O.

