

Total No. of Questions : 12]

SEAT No. :

P1464

[Total No. of Pages : 2

[4164] - 706

May - June - 2012

B.E. (Computer Engg.)

ADVANCED COMPUTER ARCHITECTURE

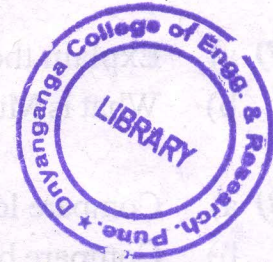
(2008 Pattern) (Sem. - II)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates :-

- 1) Attempt : Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6 from section I.  
Attempt : Q. 7 or Q. 8, Q. 9 or Q. 10, Q. 11 or Q. 12 from section II.
- 2) Answers to the two sections should be written in separate answer books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Assume suitable data, if necessary.



SECTION - I

Q1) a) What is significance of 'Scalability'? Derive the Amdahl's law for speedup performance. [10]

b) Discuss Feng's classification for parallel computer Architecture in detail. [8]

OR

Q2) a) Explain the important Architecture features of explicitly parallel instruction computing. (EPIC) [10]

b) Explain with suitable example - various levels of pipelining. [8]

Q3) a) Discuss various pipeline hazards. Give hazard detection and resolution techniques. [8]

b) Explain internal forwarding with proper example. [8]

OR

Q4) a) Prove that 'n' stage pipeline processor can be at most 'n' times faster than the corresponding non-pipelined processor. [8]

b) Explain any four features of ultra SPARC. Explain the concept of Register Stack Engine (RSE). [8]

P.T.O.

