

**IV B.Tech I Semester Supplementary Examinations, November 2005**  
**DISTRIBUTED COMPUTER CONTROL SYSTEMS**  
**(Electronics & Control Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Explain the important features in the distributed control architecture for a computer control system (use block diagram). [16]
2. Explain the following for a digital control system:
  - (a) Computer control algorithm.
  - (b) Adaptive algorithm [8+8]
3. Explain system decomposition and optimisation and parameter estimation in supervising control systems. [16]
4. (a) Explain "MASCOT" in real time systems  
(b) Explain the design techniques in real time systems. [8+8]
5. Explain in detail the fault tolerance in mixed hardware - software system. [16]
6. How would you represent your knowledge and reasoning in real time expert system. [16]
7. Distinguish between distributed data and its control in real time task management. [16]
8. Write short notes on any **THREE** of the following:
  - (a) Distributed computing systems
  - (b) multilayer hierarchical structure in supervising control systems.
  - (c) Damage confinement in mixed hardware - software real time systems.
  - (d) Expert system in real time control.
  - (e) Task scheduling in real time task management systems. [16]

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