**R10** 

Code No: **R32052** 

Set No. 1

## III B. Tech II Semester Supplementary Examinations, April - 2016 **COMPUTER ARCHITECTURE**

(Computer Science and Engineering)

Time: 3 hours Max. Marks: 75 **Answer any FIVE Questions** All Questions carry equal marks 1 Give a brief note on SIMD Supercomputers. [7] a) b) Discuss the Evolution of Computer Architecture. [8] 2 Explain the need for having a hierarchical memory organization and explain the [15] hierarchy in detail with a block diagram. 3 Briefly explain the Design space of processors. [8] a) Write the Characteristics of typical RISC architecture processor. b) [7] 4 List and explain the types of pipelined processor. [7] a) b) Explain various phases involved in Instruction execution. [8] 5 Draw and explain the Crossbar Switch and Multiport Memory. a) [7] Explain the Multistage and Combining Networks with a neat diagram. b) [8] 6 Discuss the three approaches to Multi-cast Routing. [7] a) b) How to use virtual channel for breaking deadlock? [8] 7 Explain MIMD with Shared Memory with a neat diagram. [7] a) Describe the Symmetric Multiprocessors with an example. [8] b) 8 Make a comparison between the Structural Parallelism versus Instruction Level [15] Parallelism. \*\*\*\*