SUBJECT CODE NO:- P-8086 FACULTY OF ENGINEERING AND TECHNOLOGY M.E. (CSE/SE) Examination May/June 2017 El-1 Advanced Computer Architecture (Revised)

| [Time | e : Three Hours] | [Max Marks :80] |
|-------|-----------------------------------------------------------------------------------|---------------------------------------------|
| | Please check whether you have got the right question paper | |
| N.B | i) Solve any two questions from each section. | 2000 CO |
| | ii) Assume suitable data if necessary. | |
| | Section A | |
| Q.1 A | What is scalable performance? Explain different metrics and measures for the same | ? |
| В | | 10 |
| Q.2 A | Describe instruction pipeline design in detail? | 10 |
| В | Write short note on linear pipeline processors. | 10 |
| Q.3 A | Explain SIMD array processor with block diagram. | 10 |
| В | Describe the role of parallel algorithm for array processor. | 10 |
| | Section B | 200 |
| Q.4 A | Write short note on (Any two) | 20 |
| В | i. Multiprocessor structures | |
| | ii. Synchronization mechanism | |
| | iii. Message passing mechanism. | |
| Q.5 A | Explain the application of vector processing? | 07 |
| В | Explain vector processing principles | 07 |
| С | How the performance of array processor is enhanced? | 06 |
| Q.6 A | Explain VLIW architecture in detail? | 10 |
| В | Explain different parallel processing models? | 10 |