

Time: Three Hours

Maximum Marks: 80

“Please check whether you have got the right question paper.”

- i) Assume suitable data wherever necessary.
- ii) Answer any three questions from section A & B.
- iii) Q. No. 5 and Q. No. 6 are compulsory.

SECTION-A

- Q.1 a) Explain shared memory organization in detail with suitable diagram. 10
b) Explain different approaches for scalability analysis? Explain the principle of scalable performance. 10
- Q.2 a) What are the design issues in Arithmetic pipeline design? 10
b) Describe linear pipeline processors. 10
- Q.3 Write short note (any two) 20
i) Parallel algorithms for array processors
ii) Super scalar pipe line design
iii) Organization of array processor
iv) Non linear pipeline processor
v) Flynn’s classification

SECTION-B

- Q.4 a) What is vector processing? Explain application domain where vector processing is important? 10
b) What is array processor? How to enhance the performance of array processor? 10
- Q.5 a) Explain the structure of multiprocessor system? 10
b) Explain synchronization mechanism in multiprocessor & multicomputer systems? 10
- Q.6 Write short note (any two) 20
i) VLIW Architecture
ii) Parallel processing models
iii) SIMD machine Illiac –IV
iv) Cache coherence in multiprocessor system
v) Vector instructions.