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BICSE-017

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00913

December, 2014

BICSE-017 : PARALLEL ALGORITHMS

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any **seven** questions. All questions carry equal marks.*

1. Explain private memory and shared memory model for parallel sieve of Eratosthenes algorithms. *10*

2. (a) With a neat sketch, explain the model of a one address computer. *5*

   (b) Explain the PRAM model of parallel computation. *5*

3. Draw the block diagram of the connection machine CM-200 processor array. Explain each block. *10*

4. What are the different multi-processors ? Explain them. *10*

5. (a) Explain the features of FORTRAN 90. *5*

   (b) Explain the FORTRAN 90 programmer's model of parallel computation. *5*

6. How is the operation performed on mapping data to processors on processor arrays and multi-computers ? *10*

7. In PRAM algorithm, how many single processor sequential operations can be performed ? Explain the models. *10*

8. Write down the algorithms for multi-computers in matrix multiplication. *10*

9. Write the steps for Jacobi algorithm (SISD) and indicate the Sparse linear systems. *10*

10. Discuss the Flynn's classification of parallel computers. *10*